

Prof. H. F. Brown

# THE CONNECTICUT SCHOOL JOURNAL.

SAFETY-MINUS METAL

NEW SERIES.

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## THE

## CONNECTICUT SCHOOL JOURNAL.

NEW SERIES.

NEW HAVEN, CONN., MARCH, 1872.

VOL. II.—NO. 3.

## WEAK POINTS IN OUR COMMON-SCHOOL SYSTEM.—No. 1.

BY A. PARISH, NEW HAVEN.

“Now in building of chaises, I tell you what,

There is always somewhere a weakest spot,—

\* \* \* \* \*

'n the way to fix it, uz I maintain

Is only jest

T' make that place uz strong uz the rest.”—HOLMES.

And why may not the Deacon's philosophy be equally applicable to the great educational omnibus, in which the multitudes are striving to ride into higher “stations” in life? Does any one doubt that weak spots exist in our great public vehicle? Earnest, devoted educators, recognize with sadness the dangers to which the best interests of the community are exposed, through the weaknesses of our educational system, and strive with indifferent success to find an adequate remedy. And the inquiry everywhere, is, by what means can greater efficiency be imparted to the system of public-school instruction, which, imperfectly as it has been administered, has exerted a potent influence in placing this nation high in rank among the powers of the earth?

Our public-school system may be regarded as an extensive copartnership, in which every man, woman, and child, has a direct personal interest in the results to be secured. It is the right of every individual to share the benefits which a quickened intellect, accumulated knowledge, and an increased capacity for enjoyment and usefulness can confer. Moreover, it is the duty of every member to contribute something, in proportion to his means, for the success and prosperity of the whole community. Private and public advantage in the matter of education can never be separated. What is gain or loss to one, is gain or loss to the other. Private interest and public welfare call for investigation, to determine why the results of our great public educational enterprise have fallen so far short of what might reasonably have been expected, that measures may be adopted for the removal of obstacles which lie in the way of future success.

The leading causes tending to impair the efficiency of our system of public instruction may be thus classified:

I. Those which are obvious and direct in their effect.

II. Those which are more remote and indirect in their influence.

Of those belonging to the first class, we should place at the head of the list:

*I. Incompetent Teachers.*

The work of the teacher is often and truthfully represented as second in importance and far-reaching influence only to that of the preacher of the gospel. The teacher lays the foundation upon which the preacher must build; prepares the soil in which the seeds of divine truth are to be planted. The responsibility resting upon the teacher, in view of the work to be done, is great and too often underrated. That it is lightly esteemed is evident from the slight preparation deemed necessary for the duties. How many teachers make a tithe or a hundredth part of preparation for their work that is required of those entering upon either of the professions of the divinity, law, or medicine? Even for the ordinary pursuits of life, more time and practice are required than are thought needful for the business of teaching. No young man is permitted to attempt a journeyman's work in a mechanic's shop who has not served a long apprenticeship, or acted as waiter upon a skilled workman, carefully observing how he performs the work, and by degrees attempting the lightest and least important part, until at length he may be permitted to assume the responsible duties of an experienced workman. Yet, of the two thousand teachers in the state, and of the many thousands throughout the country, a very large proportion pass directly from the school, while yet in their teens, with no higher standard or better methods than those which a child would gather from those who had been his teachers, to assume the vast responsibility of molding the character, forming the habits, and guiding the minds of the young, children teaching children, with little apprehension of the good or evil that may result from their work.

Many who fail to procure a livelihood in other vocations, resort to this, and find employers who do not hesitate to intrust the intellectual and moral culture of the children to their care, because they will teach for a small price. Not unfrequently persons who pass a fair examination in the studies required to be taught, are possessed of such personal habits and manners, have such blemishes of moral character, that judicious parents may well hesitate to share with them the responsibility of forming the character of their children.

Again, the value of the work sought to be accomplished in the schools is seriously impaired by the fact that so few teachers enter upon the business of teaching with a fixed determination to make it a permanent employment—a life business. Consequently the preparation for the work is likely to be inadequate, and at every step the feeling of responsibility and ambition to excel is enfeebled, because the teacher is in a waiting posture for "something better to turn up." Hence the disinclination to read educational works relating to the vocation; hence the light esteem in which educational conferences, to devise better methods of instruction and school administration, are held by so many.

While it is admitted that there are many enthusiastic, thoroughly qualified educators, to whom must be attributed, chiefly, whatever of efficiency or success our school system has attained, the existence of defects, to a greater or less extent, as suggested above, cannot be doubted or denied. Hence the incompetency of teachers may be appropriately regarded as a prominent source of weakness in our school system.

## *2. Small Compensation for the Work that should be done.*

It is claimed, with some show of reason, that teachers are generally paid all their services are worth. Beginners, it is said, are mere experimenters, who go through the formality of teaching without, in reality, accomplishing much that is valuable; who barely sustain themselves in preserving order, communicate little knowledge, and fail to instruct the pupil in methods of study, or how to reproduce what they have learned. Years of experience increase, in slight degree, the capability of teachers, whose best efforts bring small compensation and corresponding credit from the community for whom they labor. Both by act and word, teachers not unfrequently say, "I perform more labor every day than I am paid for; if I do more, nobody will thank me for it; the public do not appreciate any service beyond that most common in kind and limited in

amount; and the compensation paid is a fair indication of what my employers expect from me." It is not our purpose here to debate the question, which party is inflicting the greater harm to the cause of popular education; but it is plain that both are effectually applying the arithmetical principles of "Reduction Descending" to the business of instruction.

But what are the facts in relation to the pay of teachers? The last report of the Secretary of the State Board of Education furnishes some data for estimates. From his report we learn that throughout the state:

1. The average wages per month (4 weeks) of male teachers is	\$58.74
2. The average wages per month (4 weeks) of female teachers is	29.16

The lowest average of wages in any county in the state is:

1. To male teachers,	\$42.44
2. To female teachers,	24.85

Of the 157 towns in the state that employ male teachers, 124 towns pay less than the average wages (\$58.74 per month); only 33 towns pay more. Of the 164 towns employing female teachers, 119 towns pay less than the average wages (\$29.16) paid through the state, and only 45 towns pay more than the average. Thus it appears that about *four-fifths* of the towns pay their male teachers less than the average wages, and about three-fourths of the towns pay their female teachers less than the average wages paid in the state.

The smallest average wages paid the male teachers in any town is \$24.75; the smallest average paid the female teachers in any town is \$16.55 a month. The number of teachers receiving wages ranging but a few dollars above these sums is large.

The average length of schools in the state is eight months, and none are continued longer than ten months, while a large number make a much shorter average.

The aggregate earnings of an average male teacher is therefore ( $\$58.74 \times 8 = \$469.92$ ) about four hundred and seventy dollars. The aggregate sum a female teacher can earn, at the average rate, will be ( $\$24.85 \times 8 = \$198.80$ ) about two hundred dollars. But we must not forget that there are fifty-two weeks in a year that demand a continued supply of food, clothing, and other necessaries of life; so that if we distribute the amount earned through the twelve months, the weekly allowance for expenses will be about nine dollars a week for average male teachers, and less than four dollars for

the female teachers, of the same rank as to salary. So, if we estimate the value of a day's work at the same rate, allowing three hundred working days to the year, as in ordinary occupations, the male teacher will receive about a dollar and a half, and the female teacher about two-thirds of a dollar for each working day of the year. But, four-fifths of one class of teachers and three-fourths of the other, who fall below the average wages paid, receive a daily compensation considerably less than a dollar and a half and two-thirds of a dollar, respectively.

Let us note a few cases by way of comparison. My plumber has just sent in his bill for work. Among the items I read, "To  $\frac{1}{2}$  day, plumber and helper, \$3.25;" which means 65 cents an hour for the two, or taken separately, the journeyman must be paid fifty cents an hour and the "helper," another name for apprentice, will take the remaining 15 cents, making a total for the day's work of ten hours, five dollars and one dollar and a half to the two workmen. But allowing that the employer, who sends out his men, deducts twenty per cent. for his own profits, four dollars per day for one, and one dollar for the other, will be left. For three hundred working days, at four dollars a day, the journeyman gets his twelve hundred dollars and the apprentice three hundred dollars. So the wages of ordinary mechanics will range from three to four dollars a day, making an amount more than double that paid the average teacher.

The dress-maker must be paid from one to two dollars a day, with her board added, if she comes into the family to do the work. The woman gets her dollar or more and meals, who cleans the house, or does the weekly washing. Even the domestic, the cook of the family, who receives her two to four dollars a week, with her board estimated at a moderate price, receives better compensation, a larger amount in a year, than three-fourths of the female teachers of the state for their services.

We will not discuss here the questions which are naturally raised, *i. e.*, the apparently small number of hours of duty required, and the light and easy work of the teacher. As to time employed, it is certain that few teachers can perform thoroughly all the duties of a school within the customary school hours.

If either labor or an oppressive sense of responsibility could be thrown off by the faithful teacher, outside of school hours, by day, or during those which should be devoted to refreshing sleep, it might be pertinent to compare the hours of service nominally required of the teacher and laborer. No one

who has ever attempted both vocations will hesitate to decide whether manual labor or protracted strain upon the nervous system and brain will soonest exhaust the vital powers.

That teachers sometimes make the task of teaching a light one by neglecting duty, is not to be denied; but the fact only proves that there may be eye service in this vocation as well as others; and all such cases may be appropriately referred to the source of weakness in the school system already named, viz., "incompetent teachers."

In presenting the foregoing pecuniary exhibit, the parallel has been drawn between the compensation of the teacher and the wages of ordinary business, to show the value which the community attach to mental culture in comparison with material interests. That there is a class of teachers, comparatively small, whose services are more highly esteemed, whose remuneration is more nearly equal to that awarded to persons engaged in other intellectual pursuits, should not be ignored. Let the number of such be increased and the other class diminished; let merit, fidelity, capability, tested by results, receive adequate reward, and vigor would soon replace the present manifest weakness.

### 3. Inadequate Provision for School Purposes.

From time immemorial the country school-house has been an object of satire and ridicule, on account of its cheapness and neglected condition. While great improvements have been made, of late years, in school-house architecture, specimens of the olden style remain in sufficient abundance to confirm and illustrate all that has been said and sung about this monument of public economy. A single glance at its structure, in comparison with the church, the court house, or even the common jail and penitentiary, will reveal how much deeper interest in these was felt by the builders than in that edifice where the young receive those lessons which are to determine the character of their future manhood.

One would suppose that within those walls, where the children are to spend so large a portion of their tender years, some of the comforts which men demand for themselves in mature life might be provided for the young, to mitigate, in some degree, the severity of those tasks which rigid mental discipline requires. But the carpeted floor, the cushioned seat, the frescoed wall of the church, the rich finish and furniture of the bank, or elegant store, would be quite out of place where children are assembled for the culture of the intellect, of refined habits and manners. Is it a matter of wonder that those chil-

dren who come from homes richly supplied with whatever can contribute to comfort, refinement, and the culture of taste, should deteriorate under such surroundings as are too common; or that those whose homes are destitute of comfort and refining influences should fail to receive that culture from coarse surroundings which is a most desirable part of an education?

Sometimes great care is taken to build the house properly, of suitable materials thoroughly put together according to plan and contract. But often here ends the responsibility of the builders. The money is expended, and, at the last, the very supplies essential for the success of the school fail to be furnished. The tools needful for daily work are wanting. Inadequate provision for warming, or taking care of the premises, or making repairs, occurs oftener than in any manufacturing establishment or mechanic's shop.

A competent teacher works successfully, as does a workman in any other business, only as necessary implements and conveniences are provided for his use. If denied them, his efforts are but a partial success at best. What, then, can be reasonably expected of a poor teacher, with poor pay, in a dilapidated house, without conveniences? Weak points in the system, are they all.

#### ENGLISH LITERATURE IN THE HIGHER SCHOOLS.

BY WILLIAM HUTCHISON.

Most "high schools" pay some attention to English literature, and the question here is not so much whether this study shall be introduced, as how it shall be taught. And here two courses present themselves. One is to take some book consisting chiefly of lectures or essays on the subject, and have the pupils learn and recite them as they would history. This method has some advantages. If the text-book is reliable, it imparts a certain amount of trustworthy information; the quantity of work done by each pupil can be accurately determined; the recitations can be made to appear successful; a survey of the whole field can be taken, and if the teacher is not "up" in the branch the defect can be covered. It is a question, however, whether such study does much special good. It is probably better to get some knowledge of what our literature contains in this way than not to get it at all, but this method does very little to cultivate the taste and train the critical judgment, and tends rather to fill the mind with ready-made

opinions imperfectly comprehended, which have very much the effect of sudden wealth on social manners, leading to mental ostentation and snobbery. Besides, it will probably have this very bad defect also, it will disgust with the subject those who have by nature a special adaptation for it, and who would be competent to form opinions for themselves if properly directed.

The other course consists in taking the pupils directly to the literary records, and simply helping them, so far as necessary, to penetrate the external form and see the soul that dwells therein. By the first method the pupils learn about literature, by this they learn literature itself. The one is like studying botany from books in a close room, with at the most a few dried specimens; this is like seeing the flowers where they grow, in the fresh fields, under the bright sky, bathed by the pure air. You learn not only their curious forms and wondrous framework, but with all your faculties quickened by the surroundings, you enter, as it were, the world of their being, and live with them, for the time, their sweet, pure life. The study about literature tends to make pupils conceited, flippant, shallow; the study of literature, properly conducted, will make them modest, reverent, sensitive to the beautiful and good, pure-minded, high in their aims, courageous and true in their views of life. Its effects will be evident in their deportment, in their performance of duty, and even their faces will in time tell of the clarifying process within, as all can testify who are conversant with the education of youth, and have power to notice the effect of their work upon them.

Lest this may seem exaggeration to some, let us briefly consider what literature is, and what the study of it involves. In one sense literature is history, for history tells us how nations have felt and acted, and that is the best history which tells us not only these things, but why they were and what were the consequences; and all these things are so stamped on the literature of a people, that you cannot master the one without learning the other. In another sense literature is biography, for biography is a record of a life, and that is the best which gives us not only a life, but whence it came and what it meant. And so each scrap of literature is a life or a part of a life, for it furnishes us a glass, as it were, through which we may see a living soul, or it is of little worth. Now it is this exhibition of life in all its length and breadth and height and depth, which gives literature its great power. History presents to us the lives of nations, and biography the lives

of individuals, but after all neither goes very deep. It is too much merely the clothes of the man or the general framework of the nation which meets your eye, and these are seldom so drawn that you can see more than is written. Literature goes much deeper. It gives you the inner workings of the heart, and you probably get as near a great soul through the poem, the drama, or the work of fiction, as is possible in the present state of existence. Again, every scrap of true literature gives you both a history and a biography, for it brings before you both a nation and a man. Every play of Shakespeare reveals not only the poet's great soul, but the Englishmen of his time, and you learn more about both from mastering Hamlet than you could from many pages of ordinary history or biography.

And yet it is by no means meant that the study of literature will supersede that of history. On the contrary, it will constantly lead off into this and many other branches. Literature is a record of the human soul: it is as it were its photograph, from which we may get the truest insight into what it is. Its hopes, fears, doubts, joys, sorrows, struggles, aims and anticipations are all depicted there, and nowhere else can we see them so perfectly. But since we live in a material world and see through material eyes, our thoughts take shape from what we see and hear, so that one must often know how a man was circumstanced when he wrote, if he would fully understand what he has written. The sensitive David Copperfield, chained by fate to a life which he loathed, and separated from one which his nature craved, is one thing. We know at once that the mind which conceived him so, must have suffered keenly, and drew in some way from its own bitter past. But Dickens, shunning a certain street and weeping at the very sight of the old way to his servitude, long after he was himself a father, adds quite a touch to the picture. We now see definitely what before was strong but somewhat vague. And yet the biography without the fiction would hardly so much impress us. It would be simply something of which we had heard; now it is something we ourselves have, as it were, seen.

Our literary studies will thus have to be constantly supplemented by researches in almost every department of human knowledge. History, biography, science, theology, geography, everything that can tell us how a mind was moved at a given time, will in turn be brought under requisition. And on these very subjects we will thus often get our best views, for the light which shines from the literature will both direct our path and enable us to

see what lies in it. How it would clear up, for instance, what many an old theologian really believed, if we could have from his pen some truthful drama of life in which his doctrines were unconsciously tested.

From this very imperfect sketch of what we conceive the study of literature to involve, it will be seen that it is a department for which few teachers are prepared. And yet if all who have it in charge should do the best they can, we are persuaded much more would be done for the culture of our youth than is now even dreamed of. Indeed, so much are we impressed with the value of this study, that we think under competent management it might be made to occupy one-third of the time in a four-years course, with great profit, and we do not think that any other branch would send forth pupils so well equipped on every point for the great battle of life.

And now, with a little more particular discussion of the mode of conducting the study, we will close. In the first place, the amount to be gone over will depend partly on the time and partly on the facilities for outside investigation enjoyed by the class. If there is a well-stocked library within reach, the work can be more thoroughly done than if there is not, and consequently more time can be profitably spent on a given author; and also if the time allowed is short, the number of authors studied must be few. And here we would lay down the same rule as in all matters of study, that quality is much more important than quantity. We would think it much better for instance to give a class a thorough acquaintance with Shakespeare, than to give them a glib smattering of every author from Chaucer down.

Again, the amount of time to be given to the study will have to be determined by the proper authorities of each school, according to its circumstances. As we have said, we think one-third of the time for a four-years course would not be too much, and we think very decidedly that less than one-third of one year would be too little. Supposing this to be the time allowed, the question now arises, shall the lessons be daily throughout one year, or weekly throughout the four? We prefer the latter course, because, as has been intimated, it will often be desirable to make outside investigations between the recitations, which the pupils can do by this plan, if the school has proper facilities. But if it is thought necessary to have the recitations daily, then the time of the recitation should often be taken up by the teacher in imparting in some way

such information as the case demands, even at the risk of not being able to "mark" for the exercise within a few hundredths of what each deserves.

The question of what helps the pupil should have, has been already intimated in the course of the discussion. They should be such as will recreate for him, as far as possible, the surroundings of the author when he wrote. Contemporary history, especially such as gives the manners and life of the people; books of travel and other works, which will enable the pupil to see, as it were, the hills and valleys, streams and houses familiar to the author; books which tell what men thought on religion, morals, science, government, will be an aid. On the contrary, criticisms and estimates of the author will be rather an injury in the beginning. Such things are valuable after one has read an author and in a measure formed his own opinions, but at the outset they are a hindrance to independent thought, and tend to check the growth of the critical faculty, which it is one object of the study to foster.

And now, lastly, how shall the recitation be conducted? This will of course depend greatly on the bent of each teacher. Every man, competent to teach, will have his own plan, which he can best execute in his own way. There are, however, some common traits which we may discuss. In the first place, the recitations can hardly have that definiteness and equalization of parts among the members of the class which can be attained in the mathematics, and consequently it will be harder to give daily credit to the members for the work done. It would perhaps be well not to attempt this, but to settle that matter by examinations from time to time, say on closing the consideration of a particular work or author. Indeed, it is a question whether all marking in our schools would not be better performed in some such way.

Again, the teacher must be careful not to dogmatize, but to lead the pupils to form opinions, rather than give them opinions to remember. He must aim to put his pupils *en rapport* with the author, and different cases will require different methods. Sometimes reading a few sentences properly will do much. Sometimes guiding the pupils in their effort to read will do more. And it is wonderful how much this will often effect. We have seen a class, by the simple attempt to render a scene of Shakespeare by the voice alone, get more insight into the author's spirit, than volumes of lectures could have communicated. Sometimes it will be by quoting or reading passages from other authors, or exhibit-

ing photographs, or maps, or illustrations, or by giving scraps of history, or delineations of manners or customs, or in many other ways which the peculiarities of each case will suggest. And here, more than anywhere else, everything will depend on the tact of the teacher and the abundance of his resources, and the opportunity he has for study and research. And it is a great pity that those who employ us cannot see their own interests better, than to overcrowd most of us with such constant work that we have little strength or time to replenish our stores, scanty enough at the best. But the work is before us, and though we cannot do it as we wish or are conscious we could under more favorable conditions, still, if we do what we can, perhaps the excellence of the study itself will in some measure atone for our deficiencies, and we will certainly have this consolation, that our successors will be likely to have greater advantages on account of our efforts; for the pupils to whom we open the rich stores of English thought can hardly fail to appreciate better the needs and worth of our profession than the generation in which we live.

#### DISCRETION IN ASSISTING PUPILS.

BY C. L. AMES, PLAINVILLE.

One of the many important questions that present themselves to the teacher for consideration is, "*How shall I assist my pupils in their studies?*"

Many teachers err very greatly in this one thing—assistance. Some that act wrongly in this particular have never given any thought to the subject, and, hence, sin through ignorance. Others may have considered it, and yet have arrived at erroneous conclusions. The ideas that any teacher may form, respecting the assistance due a pupil, will depend upon other primitive ideas. To reason correctly on this subject, he must have a clear idea of what teaching is; he must know what habits the pupils ought to form; he must have a correct conception of the object of the school. The teacher who has accurate views upon these points will be almost certain to give the pupil only judicious assistance.

*What, then, is teaching?* Teaching is not telling. If teaching were simply telling, how rapidly children could be taught, and how easily they could be educated! They could present themselves before their instructors and listen passively from morning till

night. I have seen sabbath-school teachers stand before their classes, and pretend to teach them by talking the whole time themselves. Such classes are never educated. These teachers seem to think that the mind is a "passive recipient," to be filled by continual talking. This is not the fact. We know that many times we hear sentences uttered, whole sermons read, perhaps, without receiving and retaining a single idea. The pupil may hear an able essay on language, he may listen to a lecture on history, and yet may not be profited in the least. The mind is not a passive recipient. It has its own active forces that seize and retain ideas, and, in conjunction with these, reach forth to other ideas.

The teacher teaches, then, only so far as he excites the activities of the pupil's mind. He teaches only so far as he gets work from the pupil. One writer has come near the truth in saying that teaching is causing to know. The teacher who attempts to aid a pupil, by simply telling, does not teach him. Such help is not an assistance, it is rather a hindrance. Some teachers, for instance, will take the pencil, perform an example, pass it to the pupil, and call it assistance. Is this teaching?

*What habits should be formed by the pupil?* I shall mention only one of the many. This one is alike important to the farmer, manufacturer, or professional man. It is the habit of self-reliance, second to few in excellence. The pupil that depends upon his teacher in every little difficulty will be characterized through life as a person of little original power and poor judgment. Such a one will be a copyist. He will adopt other persons' ideas; he will conform to their judgment; he will, perhaps, be even guided by their conscience. A man of no ideas is ridiculed; a man of no judgment is to be pitied; a man of no enlightened conscience is despised. Let the pupil, therefore, form habits of self-reliance. Let him surmount the difficulties alone, if it is possible. If he cannot do this unaided, let the teacher assist him a little, giving hints, rather than full explanations, for oftentimes a mere suggestion in regard to some difficult point will be sufficient. The teacher should not perform the work himself, but let the pupil do it.

A child commencing to walk may be assisted a little, but suppose he is literally carried from chair to chair, how much strength of muscle will he gain? The little child gains strength by his repeated trials; he profits by his failures; persevering in his attempts, he soon overcomes all of the difficulties,

and passes from chair to chair unaided. Too many teachers are prone to shoulder their pupils, and carry them through all the difficult places, and thus deprive them of that self-reliance which is of such vast importance, and which they came to school to acquire. The pupil should be taught to expect difficulties all through his course, and to feel that school is the place in which to learn to surmount these, and make them stepping stones to other greater difficulties to be overcome in turn. He will be educated when he can go on surmounting one obstacle after another. A distinguished writer has said that the best educated man is not he who *knows* most, but he that *can do* most. This power to *do* will depend upon the discipline he receives.

The sole object of school is the discipline of the pupil physically, mentally, and morally. More particularly it is to discipline the mind. The powers of the mind gain strength by exercise, as do the muscles of the body. To think is to exercise the mind; therefore, teachers should labor earnestly to have their pupils think. The teacher who leads his pupils to think constantly, carefully, and accurately, will educate them for the practical duties of life. How many pupils there are that can correctly answer all of the questions in their text-books, but when asked to perform some practical example, will totally fail!

Why is this? Because they have not been taught to think; they have not been taught self-reliance. These pupils, when they receive assistance, desire the teacher to do all of the thinking while they rest. To this the teacher should not consent. He should ask questions in such a way that the pupil will have to think himself. The pupil can be led by a few questions or suggestions to surmount his difficulty. Sometimes pupils are lazy. They, of course, will want the teacher to do the work for them. Let him refuse. The teacher's success depends chiefly upon the amount of work he can get from his pupils.

From the above considerations, we certainly think that every instructor of the young should be careful *how* he assists his pupils. When the teacher assists so that the pupil will form the habits of perseverance and self-reliance when he assists so that the pupil's mind will be well disciplined, then we may cheerfully anticipate the future, when these youth will become men and women, possessing original ideas, a sound judgment, and a conscience that will guide them in the right way through life.

## PREPARATION FOR TEACHING.

BY M. C. STEBBINS, SPRINGFIELD.

The popular estimate of the teacher's work is a meager one. The belief is quite prevalent that minds gifted with more than mediocre power and ambition will not be content to toil in the treadmill of school-teaching. It is presumed that if any one continues long at this business, it is because there is a conscious lack of a popular talent that could make its way to more attractive fields of labor and influence. Small expectations are entertained in regard to those who are mere professional teachers.

It would be of little use to quarrel with this prevalent opinion, or to complain of its injustice, since it is but an effect whose cause exists in history, and may not be difficult of discovery. Undoubtedly, it springs from a sad misapprehension of the real nature of the teacher's calling; but, unfortunately, this misapprehension is shared by a very large number of the profession, and right here we may find an element of the causation to which we have just alluded. We cannot reasonably expect that the public will think more highly of our vocation than we do ourselves. If our own estimate be a just one, and give much dignity and force to our life and work, then will it surely lift the popular estimate up to its own level.

But, may we not safely challenge the refutation of the statement that no other profession than the ministerial, equals that of the teacher in its demands for the largest mental, moral, and religious culture, or in its opportunities for influence and growth? I am very well aware that there is now a great deal of incredulity in regard to some things involved in this proposition; but I am also fully persuaded that this would vanish in the light that should reveal the full truth. It is not many weeks since we heard from the highest official authority on educational matters in our commonwealth, the affirmation that there is no *educational system* in the state of Massachusetts, and if there is none here, can one be found in any other state of the Union? Why have we been so long feeling our way in the dark? Why is there to-day such a notable want of unity and definiteness to our methods of teaching the very rudiments? Is there any reason more substantial than this: that we do not adequately comprehend the order in which the faculties of the human mind are developed, the kind of training best suited to the several stages of the mind's development, and the proper limits of the work that should be attempted during each stage? To what

extent the mind is aided in the clearness, correctness and rapidity of its operations, by the presence of visible objects, is another question upon which there is diversity of opinion. The various judgments upon the value of the work done in our schools, as a preparation for practical life, give rise to a great many questions that touch the arrangement and practical working of our schools in every part. There is little probability that these points, and others like them, will ever be settled so that we shall have a uniform and stable system, until a goodly number of professional teachers have come to an intelligent agreement upon the eternal principles that certainly underlie these questions. There is no realm of philosophical research where more of important vital truth is stored, and none that makes a larger demand upon the best thinking powers.

Our most thoughtful statesmen, distrusting the adequacy of every other means, are looking to the influence of our public schools to raise up a class of citizens in every part of the Union, intelligent, honest, and patriotic enough, to give so much of strength and purity to our government as will insure its peace and permanence. When we further consider the extent to which it is quite possible that the teacher may give impulse, compass and quality to the life of his pupils, we have data enough to warrant the conclusion that a man, or a woman, may be as gifted by nature, as learned, as ambitious, as energetic, as the best of our race, and still find ample scope in the profession that is now urgently beckoning onward the foremost of our teachers.

Looking at the teacher's calling from this standpoint, we cannot fail to see that the preparation that can alone fit one for the best work of teaching is not a small matter in any sense. The maturity of mind, the rich fruitage of patient industry, the sterling integrity, the ability to take comprehensive views, the philanthropic devotion to worthy objects, that are absolutely requisite, would readily gain admittance to either of the learned professions, except where excellence of character would be counted a disqualification. Then, those who are purposing to enter upon the business of teaching should not assume that they can get ready to do the best sort of work in this vocation in less time, and with less effort, than would be required to prepare them to do the same grade of work in the medical, legal, or ministerial profession. We are now speaking of what we choose to call *general preparation*. This should be so broad and thorough as to insure the ability to think to some purpose upon the questions for whose solution, as we have already intimated,

the cause of education is now waiting. The general eagerness to be doing the work of journeymen has well nigh banished the name of apprenticeship, and the reality as well; the same kind of impatient haste keeps a throng of immature and meagerly furnished applicants waiting for vacancies that might be vacant still, though nominally filled. The need of this greater maturity, and broader culture, should be recognized in the profession. Its importance should be acknowledged in all our normal schools. We sometimes forget that it is possible that there is danger on more than one side of us. Admitting that we may become the mere repeaters of the thoughts of other minds, yet we may do even worse than this in failing to recognize the fact that principles and inventions which have been wrought out by others may have just as much value for us, at this moment, as they would have if we should be fortunate enough to rediscover them by a repetition of the wearisome process which first brought them to the light. Dr. Hopkins well says that the constitution of our nature, by which we have a tendency to form habits, was designed to enable us so to incorporate into our being the results of voluntary action as to avail ourselves of those results with the least possible attention, and so that the mind may be free to enter upon new fields of effort. If a man were bent on devising a machine to increase the facilities for rapid traveling, it would be wiser for him to make himself acquainted with the locomotive in the completest form, combining the inventions of a hundred years and a thousand minds, than to begin where Newcomer or James Watt did. The same principle holds true in every department of education. We can gain an understanding of results of laborious processes of thought in a small fraction of the time that it would take us to work up to them. The only chance that the present generation has of leaving the world wiser than it found it, is in comprehending, before its own time of action is past, the condition in which the former generation left it. There is then no occasion that we should depreciate the value of acquisition as a part of education. We can intelligently judge of the value of any particular method or system only by comparing it with similar methods or systems. A pupil may be taught to have such implicit faith in a method of treating a subject, as to believe it to be the best possible method for the treatment of every conceivable subject; but the holding of such an opinion would be much better evidence of the narrowness of his education than of his great wisdom or his originality. It is too obvious to need con-

firmation, that the very best work we can do for our pupils, until they have got quite well along in our public schools, consists in teaching them things that have been settled by previous investigation. It must be, therefore, quite as important that we should know something, as to get a notion of how we might teach something, if we only knew something to teach.

Our towns, cities, academies, colleges, and universities, are expending tens and even hundreds of thousands of dollars to establish libraries and open their treasures of literature, history, and science, to the people; why, then, should teachers discard the use of books in the preparation for their work? There is a great deal of talk that would make a sorry show in print, but a really good thought was never spoiled by being put in a book.

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#### SHEFFIELD SCIENTIFIC SCHOOL OF YALE COLLEGE.

BY PROF. D. C. GILMAN, YALE COLLEGE.

The annual meeting of the State Board of Visitors to the Sheffield Scientific School at New Haven, took place this year on Washington's birthday. It was attended by Gov. Jewell, ex-Gov. English, Lt. Gov. Tyler, ex-Lt. Gov. Hyde, ex-Lt. Gov. Winchester, Secretary Northrop, and Hon. H. M. Cleveland, of the State Board of Education; Sec. T. S. Gold, of the State Board of Agriculture, and the State Treasurer, Hon. D. P. Nichols, besides several prominent benefactors of the institution, and a goodly editorial delegation. President Porter and the professors of the school went the rounds with the visitors from abroad.

Among the points to which attention was called were the following:

The annual programme of the Sheffield Scientific School is going through the press, and the preparation of the seventh annual report is also in progress. The number of scholars has gone up the present year to nearly one hundred and fifty, fifty-five of whom are Freshmen—the largest class which has ever entered; and thirty are resident graduates, who are pursuing higher studies after taking their Baccalaureate degree. The most noteworthy feature in the progress of the school during the last year is the determination of Mr. Sheffield to erect, at his own expense, a second large building for the exclusive use of the institution. This building will contain a good public lecture-room and ample accommodations for the increasing classes. Its construction

is already begun. The instruction in drawing has also been advanced during the past year by the addition of Prof. J. H. Niemeyer to the corps of teachers—an American gentleman, trained in the best European schools, during a period of several years, and able to teach with skill that "free hand drawing," which is in these days an essential element in a good education. His classes well illustrate the zest which a skillful teacher can awaken in this study.

The usual course of evening lectures is in progress at the present time, in accordance with the following scheme, which we reprint as an indication of the subjects which are brought before an audience of New Haven mechanics :

- I. Mon., Feb. 5. Introductory Lecture : Relations of Mind and Matter, . . . Pres't Porter.
- II. Thurs., " 8. Principles of Elocution, . . . Mark Bailey.
- III. Mon., " 12. Recent Contributions to American Geography, . . . D. C. Gilman.
- IV. Thurs., " 15. Experiments on Sound, illustrating the method of determining the motions of the heavenly bodies by the Spectroscope, . . . Dr. Alfred M. Mayer.
- V. Mon., " 19. Our Common Weeds, . . . D. C. Eaton.
- VI. Thurs., " 22. The U. S. Weather Signal Service, . . . W. H. Brewer.
- VII. Mon., " 26. Phosphorus, . . . S. W. Johnson.
- VIII. Thurs., " 29. The Mechanics of Europe, Rev. B. G. Northrop.
- IX. Mon., Mar. 4. Tilghman's Sand-Blast Engraving Process. G. F. Barker.
- X. Thurs., " 7. Steam-Engine Indicator, . C. B. Richards, (*Hartford*.)
- XI. Mon., " 11. Forces of Inanimate Nature, W. A. Norton.
- XII. Thurs., " 14. The Prismatic Spectrum, C. S. Hastings.
- XIII. Mon., " 18. The Telescope, . . . C. S. Lyman.
- XIV. Thurs., " 21. Color, . . . J. H. Niemeyer.
- XV. Mon., " 25. Steam Boilers, . . . W. P. Trowbridge.
- XVI. Thurs., " 28. The Darwinian Hypothesis applied to the Human Race, . . . A. E. Verrill.

Our chief object in speaking of the school is to call attention to its relations to the young men of this state. They are already becoming awakened to its advantages, but they do not yet sufficiently appreciate its opportunities.

The Scientific School is a very inviting place to those young men who do not feel inclined to classical studies ; to those who do not see how they can struggle through the early years of professional hope and penury after completing a college and a professional training ; and more especially still, to those who perceive in their intellectual tendencies, a strong bent toward the study of mathematics, a quickness for invention, an aptitude for mechanics, a love of natural history, or a fondness for experimental inquiry ; and yet who desire to become well educated, even liberally educated, so as to take a part in all the discussions and movements of our American society.

Connecticut boys are famous for ingenuity, contrivance, enterprise, versatility. Many of them inherit from their fathers such traits, and multitudes of them grow up inspired and educated by the exciting influences of the manufactory. Till recently there has been no provision for the scientific culture of such youth. After the high school or academy, only the counting-room or the workshop stood open. Now, however, the natural aptitude for scientific studies may be cultivated by books, teachers, apparatus, laboratories, comrades. All that the world has discovered of heat and steam and the other great natural forces, all that is known of the marvelous laws of mechanics and all the wonderful contrivances of mechanism, all that has been found out in respect to the chemistry of the material world, all that is known respecting the minerals, the plants, the animals, the rocks, may be studied in an institution especially arranged for instruction in these sciences. Such studies are indeed difficult and profound, but they are most inviting and strengthening ; rightly pursued, they store the mind with useful knowledge, while the process of acquisition invigorates good mental habits, trains the judgment, quickens the perceptions, disciplines the reason. Here then is a liberal training which may have an immediate bearing upon practical life. The student, becoming a well-educated and developed man, may also become expert in some branch of science and in its application to human industry.

Nor does the Sheffield course omit the study of language. Great importance is attached to an acquaintance with the English tongue, a branch of education quite too much neglected, and it is also thought that no one who desires to be liberally educated should fail in these days to acquire a knowledge of French and German.

Thus it will be seen that Connecticut boys, young men we mean between sixteen and twenty years of age, who are disinclined, by family considerations, natural tastes, or the want of means of support, to enter upon a classical course of study, may find excellent opportunities of culture in the Sheffield Scientific School. Its course is not put forward as better or as worse than a literary training ; it is different. Some will choose one, some will choose the other.

There is another class of persons who may derive great advantages from the Sheffield Scientific School. We refer to teachers who have already acquired a good preliminary education, and who desire to prosecute some one or more of the natural

sciences. There is a steady demand in academies, high schools, normal schools, and elsewhere, for teachers who know the art of teaching, are well up in ordinary studies, and have besides an acquaintance with chemistry, natural history, natural philosophy, &c., sufficient to teach the principles. We are sure that any bright young men, who could afford to remain a year in New Haven, after graduating from the normal school, might, as "special students," become acquainted with the sure principles of scientific work, and with the elements of one or more departments of study. Such persons might doubtless have free state scholarships (exempting them from charges of tuition), but they should not expect too much. "Science" is indeed a vast field. It can never be "mastered" by any one. The wisest men are restricted in their lines of work, and can only claim to be students of the elements. A thorough knowledge of great principles, an acquaintance with scientific methods of inquiry, a sympathy for the truth-loving, self-forgetting spirit of a genuine naturalist—this is better far than a thousand "useful facts," or a smattering of a score of topics.

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## YOUNG TEACHERS' DEPARTMENT

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### PEBBLE EXERCISE.—NO. I.

BY A PRACTICAL TEACHER.

*Scene*.—A schoolroom. *Time*.—Fifteen minutes before the close of school. The teacher says, "Now, children, when you are all in order we will commence our "pebble exercises." It takes but a few seconds for each child to remove from the outside of his desk, books, slate and pencil, and to place thereon a small box filled with shining white pebbles, collected by himself. Then the folded arms and erect position show that each little one is ready for the exercise. "Now," the teacher continues, "you may make some purchases. First you may each buy a lead pencil; how much will that be, Eddie?" Eddie replies, "Six cents."

Teacher.—"Very well. You may all count out six pebbles and place them carefully on one side of your desk. Next, you may buy three sticks of candy. How much will they cost?"

"Three cents," all answer.

Teacher.—"Then put three pebbles near the six pebbles, but not with them. Now the little boys

may buy a ball for which you will pay ten cents, and the little girls a paper doll for the same price."

The children count out ten pebbles and put them in a group near the six and the three.

Teacher.—"We will now see how much money you have spent in all. Every one count and see. Mary, how much?"

Mary.—"Nineteen cents."

Teacher.—"Correct. Class, how much did you first spend?"

Answer.—"Six cents."

Teacher.—"And the candy was how much?"

Answer.—"Three cents."

Teacher.—"And your last purchase amounted to ten cents. Then, tell together what you spent in all."

Class.—"Six cents, and three cents, and ten cents, equal nineteen cents."

Here a variety of questions may be asked to the school, collectively and individually, to fix the result of these combinations in their minds. As,  $6+9=$  what.  $9+3+6=$  what.  $3+9$ , or  $6+9$ , or  $3+6=$  what, &c.

Teacher.—"Now you may quietly return the pebbles to the box.

We will go trading just once more this morning, and we will suppose that each one has one half a dollar to spend, how many cents will this be?

Answer.—"Fifty cents."

Teacher.—"Then count out fifty pebbles and place them in the left corner of your desk. Susie, you may tell what we will buy first, this time."

Susie.—"A book, with pictures in it, and we will pay eight cents for it."

Teacher.—"Very well, how many pebbles must you take from the fifty pebbles, little ones?"

Answer.—"Eight."

Teacher.—"How many pebbles will remain?"

Answer.—"Forty-two."

Teacher.—"Place the eight pebbles one side of the forty-two. Now, Walter, what would you like to buy next?"

Walter.—"If you please, marm, a train of cars."

Teacher.—"Well, Walter, how much shall we pay for the train of cars?"

Walter.—"Twenty-five cents."

Teacher.—"Rather cheap, my little man, but you may all take twenty-five pebbles from the forty-two, and place them with the eight pebbles. How much money have you spent now?"

The class, after counting, answer, "Thirty-three cents."

Teacher.—"But you have spent all of your money,

so far, for yourselves. Suppose you should meet a poor little child who was cold and hungry; how much would you give him?"

The children are thoughtful, and hardly know. At length some little girl says "Ten cents." After a few words from the teacher, in which she tells of the pleasure of giving, all agree to be thus generous. So ten pebbles are counted out, and put with the eight and twenty-five.

*Teacher.*—"How much money have you spent this time?"

*Answer all together.*—"Eight cents, and twenty-five cents, and ten cents, equal forty-three cents."

*Teacher.*—"How much is left?"

*Answer.*—"Seven cents."

*Teacher.*—"Then what from fifty cents leaves seven cents?"

*Answer.*—"Forty-three cents."

As in the previous case, many questions may be deduced by different combinations of the numbers. As,  $35+10=45$ .  $25+8+10=43$ .  $50-(8+10+25)=7$ , &c.

Another similar exercise, which may be used in connection with this, is the following. Upon the teacher's desk may be placed a box, containing such a collection of coins as can be obtained, including one, two, and five-cent pieces, and if possible, three, ten, and twenty-five-cent silver pieces.

The teacher says, "Suppose I buy articles which amount to twenty-three cents. Gracie, you may come to this box and count out the exact change. What have you selected?"

*Gracie.*—"One ten-cent piece, two fives, and three pennies."

*Teacher.*—"Mary may come here, and count out the same amount, taking different pieces of money."

Mary holds up two five-cent pieces, six twos, and one penny.

"Clara, select four pieces of money that shall amount to twenty-three cents."

"Two fives, one ten, and one three."

The teacher may next take some change in her hand, and, telling the amount, have the pupils guess what are the pieces.

Suppose she says, "I have here change which equals thirteen cents. You may all try to tell what are the coins."

Some one says, "A three and a ten-cent piece."

"Wrong."

Another, "Two five-cent pieces and one three-cent piece."

"No, the number of pieces in my hand is five. Now who will guess correctly?"

Some one guessed, "Four two-cent pieces and a five-cent piece."

"Correct."

This exercise may be continued and varied indefinitely.

I would by no means suggest these exercises as a substitute for the regular object lessons in number, but rather as an aid to them, and as general drills which will relieve the routine of daily lessons. As such they will be found to be very acceptable and instructive to the children. Much about numbers will necessarily be taught, and the exercises will instruct in the practical duty of trading.

The imaginations of the little ones will also be cultivated, and many lessons which teach of material things, as well as moral lessons, may be incorporated into the exercise.

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#### THE METRIC SYSTEM.—No. 2.

BY EMMA M. GOLDSWAITE.

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Of no minor importance, under the general topic of measure of length is the exercise in sight measuring. I will not attempt to present its claims now, but simply say, that as in our own compound denominations we ought to drill our pupils in measuring distances with the eye, in feet, yards, and rods, so in the metric system the measurement of distances in meters, dekameters, and hectometers, will give the child a more accurate and real idea of these lengths than any other exercise I know of. Their estimates should be carefully compared with the true distances afterward.

The reduction from one denomination to another is rendered so simple and easy by the decimal nature of the system, that any suggestion from me in regard to methods of teaching it will be unnecessary.

Before introducing measures of surface, a simple exercise should be given, if it has not already been taught, upon surface, plane, rectangle, square, &c. These being well defined, and the method of finding area, having given length and breadth, being carefully taught, the class is ready to commence square measure.

The teacher represents upon the board a line just a meter in length. Upon this line let there be constructed a square that shall be a meter long and a meter wide.

*Teacher.*—You have learned that a figure a foot long and a foot wide is called what?

*Class.*—A square foot.

*Teacher.*—A figure then that is a meter long and a meter wide will be called what?

*Class.*—A square meter.

*Teacher.*—As in measures of length one meter was the unit, so now in measures of surface we will let the square meter be one unit. Now, John, you may come to the board and divide each of the four sides into ten equal parts. The class may tell me what each part will measure.

*Class.*—One decimeter.

*Teacher.*—Mary may take the crayon and connect the opposite points by straight lines. You see now that our large square is divided into a number of smaller ones, the length and width of each being one decimeter. You also notice that there are ten vertical columns, each column containing ten square decimeters. How many square decimeters will there be in one square meter?

*Class.*—One hundred.

*Teacher.*—We will take one of these square decimeters and in a similar manner divide it. We find it also to be composed of one hundred little squares. What are the dimensions of each?

*Class.*—One centimeter long and one centimeter wide.

*Teacher.*—It takes how many square centimeters to make one square decimeter?

*Class.*—One hundred.

*Teacher.*—If you should now in the same way divide the square centimeter what would happen? Susie may answer.

*Susie.*—The centimeter would be divided into one hundred squares, each square would be a millimeter in length and width, and would, therefore, be called a square millimeter.

*Teacher.*—Let us suppose that I mark off upon the floor a figure which shall be ten meters long and ten wide. It will then be composed of one hundred square meters. Class, what shall we call it?

*Class.*—A square dekameter.

*Teacher.*—It might be so named, and with propriety. But for some reason they have given it another name. This is *are*, a French word allied to the Latin *area*. To what, then, are one hundred square meters equal?

*Class.*—To an are.

*Teacher.*—A surface equal to one hundred acres is called by a name formed from the root *are*, and the Greek prefix, meaning one hundred. Can any one of you tell me its name?

*Class.*—Hectoare.

*Teacher.*—You have united the right words, but

for the sake of euphony, we cut off the vowel *o* before the *a*, and have therefore hectare. A hectare is really a square hectometer, consequently, as one hundred square hectometers would equal one square kilometer, one hundred hectares equal one square kilometer. What part of an are is a square meter?

*Class.*—One one-hundredth.

*Teacher.*—For the same reason that we called one one-hundredth of a meter a centimeter, we call one one-hundredth of an are a centiare or centare. A square meter is therefore a centare. Having now the various denominations used in measures of surface, we proceed to form a table, commencing with the lowest denomination.

100 sq. millimeters = 1 sq. centimeter.

100 sq. centimeters = 1 sq. decimeter.

100 sq. decimeters = 1 sq. meter or centare.

100 centares = 1 are.

100 ares = 1 hectare.

100 hectares = 1 sq. kilometer.

The abbreviations are about the same as those in measures of length. For square millimeter we have sq. mm., sq. centimeter, sq. cm., square decimeter, sq. dcm., centare, ca., are, ar., hectare, ha., sq. kilometer, sq. km.

An exercise may be here introduced in expressing these denominations of the metric system in terms of our own square measure. As, for instance, the exact length of the meter being 39.3685 in., the area of a sq. meter will be equal to the square of 39.3685 in., which is equal to 1,549.87 + sq. in., or in round numbers 1,550 sq. in.

*Teacher.*—In expressing units of different orders in the measures of length, decimals, how many places did you allow for each denomination?

*Class.*—Only one.

*Teacher.*—One series of units of surface increase, by what scale?

*Class.*—By scale of hundreds.

*Teacher.*—If to each denomination in surface measures, we allow only one place, we should make ten units of one order equal one of the next higher, and the greatest number of units of one kind which we could express would be nine. Now you may tell me the greatest number of sq. decimeters we may have without forming a unit of a higher order.

*Class.*—Ninety-nine.

*Teacher.*—That is right: and in order that we may still express our units decimals, we now allow two places for each denomination. If I wish to express 8 sq. km., 3 ha., 21 ar., and 34 sq. dcm., as ares, I should write it thus:

80321.0034 ar.

sq	sq	sq	sq
km	ml	dm	ca
or	um		

Reduction now follows, and is succeeded by the addition and subtraction of the compound numbers, as in measures of length.

Not to dwell longer on measures of surface, I will proceed in our next article to measures of volume, in which I need only to suggest a few ideas, as the method of presenting them is very similar to those already taught.

## MISCELLANY.

### THE KRAKEN.

There is and has been, for centuries, a common belief among sailors that the largest animal in existence is a kind of squid. This monster, they say, is larger than any whale, and is sometimes seen disporting on the high seas, rolling over its enormous bulk on the surface of the water. The early "yarns" of sailors were crystallized into a graphic and circumstantial account of its habits by Pontoppidan, Bishop of Norway, one of the pioneers of Scandinavian science, a contemporary of Linnæus, and who published in 1752 his celebrated "Natural History of Norway." His account of the kraken, as it was called, is substantially as follows:

The fishermen of Norway often found unexpected shallows a few miles off the coast, the water shoaling from a depth of one hundred fathoms to twenty or thirty. This was due to the presence of this monster, then lying at rest at the bottom of the sea. If the fishermen found by their lines that the water was growing shallower, they at once knew that the creature was rising to the surface, and hastened off in their boats to seek a place of safety. As portions of the back of the frightful creature first rose above the waves, they looked like islands. At the lowest computation, the animal was a mile and a half in circumference. His arms rose above the surface like the masts of a ship, and stories are told of its being able to fling them over the largest man-of-war and pull it to the bottom. When this monster sank again, he caused a swell and a whirlpool which endangered all the ships in the vicinity, while some are said to have been actually carried down in this strange maelstrom.

Denys Montfort took the cue, and having, according to D'Orbigny, a celebrated French naturalist,

represented a "kraken octopod" in the act of scuttling a three-master, told M. Defranc that if this were "swallowed," he would in his next edition represent the monster embracing the straits of Gibraltar, or capsizing a whole squadron of ships.

The English naturalist, Pennant, one of the most trustworthy authors of his time, in his "British Zoölogy," published in 1777, admits the following story of the octopus, the eight-armed cuttle-fish, or polypus of Aristotle:

"A friend of mine, long resident among the Indian isles, and a diligent observer of nature, informed me that the natives affirm that some have been seen two fathoms broad over their center, and each arm nine fathoms long. When the Indians navigate their little boats, they go in dread of them; and lest these animals should fling their arms over and sink them, they never sail without an axe to cut them off."

This was quoted by Dr. Turton in his edition of the "System of Nature," by Linnaeus.

Is there any foundation for the story of the kraken, or is it to be classed among the fabulous accounts of the sea-serpent? It should be borne in mind that the good Norwegian bishop was one of the most intelligent, able, and truthful naturalists of his time, and that, in reproducing the stories of the affrighted and superstitious sailors and fishermen, he undoubtedly believed in their substantial truth.

While no one has seen the sea-serpent, or, at least, has afforded tangible proof of his existence, there is a basis of fact underlying the myth of the kraken. In the year 1867, Captain N. E. Atwood, a member of the Massachusetts senate, presented the Essex Institute with a beak, four and a half inches long, which he estimated belonged to a squid which must have measured thirty feet in length. The specimen was taken from the stomach of a sperm whale, captured in the north Atlantic, and is now in the museum of the Peabody Academy of Science at Salem. In the museum of the Royal University at Copenhagen, is a similar beak, which came from a gigantic squid, captured, as we are told by a well-known naturalist, on the coast of Iceland. Moreover, during the present autumn, a statement appeared in the Cape Ann *Advertiser*, that the crew of a Gloucester fishing vessel, while upon George's Banks, found a squid floating dead, which measured fifteen feet in length, and four feet six inches in circumference. On writing to the editor and inquiring how far this statement could be relied on, he kindly wrote in reply as follows: "The account of the squid, as published in the *Advertiser*,

is correct, and is vouched for by Mr. James G. Tarr, of the firm of Dodd, Tarr & Co., of East Gloucester. The squid was picked up afloat (dead) at the place mentioned, and was so large that they had to take their tackle to get it aboard the vessel. They cut up one-half to bait their trawls, and caught with it one hundred quintals of fish. The skeleton might have been brought in as well as not, but, sailor-like, they did not think of it."

The writer is also informed by a shipmaster who sailed from Salem for a period of forty years, that once, while off the Cape of Good Hope, he saw a mass of squid, eight to ten cubic feet in size, floating on the surface. It had apparently been attacked by whales and dolphins, and the arms and head devoured.

It is by such facts as these that we are inclined to the belief that Pontoppidan's kraken still lives, though reduced in size, and shorn of its accredited power of carrying down men-of-war and raising *impromptu* whirlpools.

The ordinary squid is common on our coast, shoals of them being sometimes driven ashore by cod or blue-fish. They are from an inch to over a foot in length, the body being cylindrical, conical, supported by a cartilaginous bone or "skeleton," the "cuttle-fish bone," and provided with two broad fins. The mouth is armed with two horny, black jaws, strikingly resembling a parrot's beak. From around the mouth arise ten long arms, from one-third to one-half as long as the body, while in some kinds two of them greatly exceed the rest in length. These arms are provided with several rows of suckers, by which the horrid creature clings to its victims with a remorseless grasp. On each side of the head are two great staring eyes, the wonder of anatomists, since their organization is as delicate and complicated as the eye of a fish. These powerful muscular animals move by leaps, a school of them leaping about in the water as actively as brook trout. When attacked, they throw out a black, inky fluid (from which the Chinese manufacture India ink) from the so-called ink bag, which renders the water cloudy. The wily creatures thus "throw dust in the eyes" of their pursuers, and escape under cover of the cloud they have raised. But squids live a precarious life. They are the chief food of the dolphin and sperm whales, while the albatross, gulls, and larger petrels, find them a dainty morsel. The sailors call them "sea-arrows," or "flying-squid," from their habit of leaping out of the water, often so high as to fall upon the decks of vessels, thus emulating the flying-fish.

The hooked calamary, as one kind is called, is solitary, not going in schools, and swims in the high seas, especially about the banks of sargasso, or gulf-weed. It sometimes attains to a length of six feet. Another kind, with arms provided with large hooks in the center of the suckers, is thought by Professor Owen, the great English comparative anatomist, from an arm found by Banks and Solander in Cook's first voyage, and now preserved in the museum of the College of Surgeons at London, to have been six feet long when perfect. Another kind, the true "sea-arrows," is extensively used in the cod-fishery of Newfoundland for bait. Specimens of it grow nearly four feet in length, and it was perhaps a large individual of this species which the Gloucester fisherman found. Moreover, the French naturalists, Quoy and Gaimard, as reported by Woodward, found a dead cuttle-fish in the Atlantic under the equator, which must have weighed two hundred and twenty pounds when perfect. It was floating on the surface, and was partly devoured by birds.

Our friend, the captain, also informs us that the squid is extensively used in the Mediterranean for food. In 1827, when in the Bay of Gibraltar, while the plague was ravaging the town, the inhabitants lived chiefly on squid, as many as five hundred persons being engaged at one time in catching them. They take them with the "gig"—a bunch of four or five hooks tied together, which they jerk up from the bottom, hooking them haphazard. The people stew them, and as the captain said, they are "better than lobster," but, we should think a trifle more indigestible.

Hoping that these statements may be corroborated or added to, and thus the history of the giant squids cleared up, we have ventured to call the attention of seafaring men to the kraken and its humbler allies, in order that whoever finds one may be induced to preserve even a sucker or beak, if no more, for some museum, where a competent naturalist may pass judgment upon it.—*A. S. Packard, Jr., in Appleton's Journal.*

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#### THE EARLY DAYS OF GAS.

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Illuminating gas, which is the source of so much light to its consumers, yet of so many dark ways on the part of its great monopolizing manufacturing companies, is hardly more than "a child a hundred years old." Dr. Hales, of England, is said to have been the first one to obtain it from stone-coal in 1726. He regarded it, however, and exhibited it

only as a charming philosophical toy, and the whole community appears to have followed suit. This seems profoundly hard to believe in Connecticut, where an idea of one-thousandth part of the merit of this discovery cannot be started but that it is at once set on its spindly legs, and "rights" are offered for sale, at stiff prices for its use, throughout the land. It is nevertheless a fact that all the vast stores of coal-gas remained idly locked up in its stony prisons, much to the discomfiture of the poor whales, who were almost driven distracted by the increasing persecutions of men, under the demands of increasing civilization, for more light. So vigorously were they pursued, that they found no rest for the soles of their—fins, but lashed the waters of all oceans in pitiful flight.

At last, in 1792, the seed, so long ago dropped, took root in a practical brain. Mr. Murdoch, a Scotchman, suddenly took to doing a deal of thinking, then a deal of experimenting. As the result, within twelve months his house was lighted with gas. It was not yet time, however, for the whales to breathe easier; for of course they knew that after a few brighter minds have realized a great discovery, it takes a weary, clubbing warfare of many tedious years to beat it into the heads of our stolid average humanity, steeped up to the ears in prejudice. Why, even that great autocrat, Napoleon Bonaparte, buried the new-fangled idea ten fathoms deep under his sarcasm, by the simple withering remark that it was "*une grande folie!*" and Sir Walter Scott, who was an eminently sensible, and immensely popular man, gave it as his opinion that London would be in flames from one end to the other, if the absurd idea were carried out! Evidently, then, there was, as yet, no hope for the whales.

It took exactly the same time for this idea to mature that it does for a boy to merge into his manhood, and in 1813 it entered upon its full-grown estate in the hands of a company in London. Even then it was a whole year in doing its "first works," and not till 1814 did the oil lamps of London yield to their vapory opponent. Then, for the first time, could the great family of spouters exclaim more hopefully, "Now, let us have peace!"

Paris illuminated her streets with gas in 1816. Baltimore first essayed the experiment on this side of the Atlantic; but it took her from 1816 to 1821 to bring it into successful use. Boston adopted it in 1822, New York in 1827, and Philadelphia in 1835. Now, it would require about the work of one of our census takers for a whole year, to calculate the number of miles of gas-pipe that is used in the United

States alone. Meanwhile, nature, not to be outstripped by art, illuminates whole villages herself by gas, poured forth steadily from her unseen laboratories, for which she sends around no bills. Fredonia, New York, is favored in this remarkable way, and certainly owes a great debt of gratitude to mother earth.

#### WHAT RESOLUTION WILL DO.

The celebrated Dr. Heim, of Germany, called by Blücher the "field marshal among doctors," when quite a child showed a strong fancy for the practice of medicine.

When the Seven Years' War brought all sorts of army people into his quiet native village, there appeared one day a brigade physician, who, with his gold-laced hat, was a model of magnificence in young Heim's eyes. "Such a man I would like to be!" he sighed, and the memory of the fine hat never left his boyish brain.

One morning, as his elder brothers were discussing their future vocations, the little Ernest cried determinedly: "And I mean to become a doctor!" His father replied, "You are crazy, boy; I cannot afford it, for it would cost more for your education than for that of all your brothers."

But the resolute little fellow, inspired by the gold-laced hat, was not to be disheartened by this rebuff, and with a determined voice affirmed:

"Still I mean to become a doctor!"

His father, knowing that his son had a very strong dread of spiders, thought he had found the means of curing the boy's medical fancies.

"Silly boy!" he said, "how can you expect to become a doctor? Why, you are afraid if you only see a spider, and a doctor must be able to eat them, else he is no true doctor."

Sorrowfully the boy left him, but for days after was seen haunting the darkest corners of the cellar and stables, and waging war against every cobweb he could find. A fortnight later he again appeared before his stern papa with a piece of buttered bread studded with spiders, large and small.

"See, papa," he cried, "it was very disagreeable at first, but I can do it now," and he bravely began to eat the bread, spiders and all. "Can't I be a doctor now?" he exclaimed triumphantly. And so he won his father's consent, and in time became one of Europe's most celebrated doctors.—*Hearth and Home.*

Waltham, Mass., it is said, supports a free sewing-school for girls.

#### THE CORDOBA OBSERVATORY.

The new observatory at Cordoba, in Buenos Ayres, was recently inaugurated in the presence of the dignitaries of the land and the *élite* of Cordoba. The exercises consisted of the blessing of the enormous telescope, the largest instrument of the kind in South America, by the bishop; an address by Professor B. A. Gould, formerly of Cambridge, Mass., but now in charge of this observatory and engaged in mapping the southern heavens; and short addresses by Dr. Avellaneda, minister of education, and President Sarmiento. The address of Professor Gould was printed in full in *The Standard and River Platine News*, published at Buenos Ayres, from which we take the following extracts. After paying a tribute to the liberality of the government and its enlightened services to the cause of science, first, in organizing and guiding to its successful fulfillment the exposition of national industry and arts, and second, in establishing those temples where the works of God were to be pondered and explored, Professor Gould continued as follows:—We celebrate the foundation of the second national observatory upon the South-American continent, and the first institution of pure scientific research established by the Argentine nation, although we may not forget the splendid museum of the province of Buenos Ayres, to which the learning and ability of its director has given such a world-wide renown. A path is now fairly broken for the progress of the new forms of intellectual culture and higher civilization which are winning a foothold in all the leading nations of the earth. Within my own memory, the number of observatories in existence where astronomical observations are habitually made, has increased three-fold. Within but little more than 25 years, has been constructed every active observatory now existing in the United States. Even during the single year since the province of Cordoba presented to the nation, for astronomical purposes, the land on which we now stand, tidings have reached me of the establishment of three new astronomical observatories in that country; and there is now scarcely a single institution of higher instruction in that republic, possessing any distinction, which is not either provided with an observatory or engaged in the endeavor to secure one. There are thus at least twenty such institutions in the United States already provided with the means of adding to the sum of human knowledge. In England and on the European continent the number is far greater; and in this southern half of our western hemisphere, we have tidings of a magnificent telescope now erecting in the city of Quito, upon the very equator itself, as well as of an observatory, which that devoted lover of science, the emperor of Brazil, has founded upon the shores of the beautiful bay which gives name to its capital. Thus at least the stimulus of emulation will not be wanting to us, explorers of the southern skies.

After some general considerations in reference to the objects and benefits of a national observatory, the address continues:

The transparency of the sky of Cordoba upon favorable nights may be judged of by a single additional fact. You will find in the treatises on astronomy, as I have already mentioned, the total number of stars in the entire heavens, visible to the naked eye, estimated at from 5,500 to 6,000. Now, we have already recorded in the "Uranometria Argentina" the places of not less than 6,400 stars, visible to the unaided sight of every one of our observers, in the southern hemisphere alone; while in the first 10 degrees of the northern hemisphere we have 800 more, making in all at least 7,200 stars; so that we are justified in the belief that were the sky equally transparent for astronomers in the northern hemisphere, the total number of stars visible to the ordinary eye would be estimated at certainly not less than 11,000, instead of half that number.

This work of the Uranometry is now near its conclusion. Little remains to complete the necessary observations, except that general revision which all investigations require. But the work of publication will of course be laborious, and somewhat expensive. The maps will need to be drawn with great care, and the positions of the stars transferred to them with all the minuteness possible; even the labor of preparing the manuscripts for the press is by no means slight, since the positions of the stars observed must not only be given with scrupulous accuracy, but must also be compared with those resulting from the observations of other astronomers. Still, I doubt not that the necessary means for all this will be accessible in due time.

The address concluded with congratulations to those interested upon the completion of the great work.

#### THE IMPERIAL COLLEGE AT PEKING.

In a recent letter to the New York *Daily Times*, which bears the signature "Q," we find the following allusions to the Imperial University in Peking, accompanied with a reference to the progress of liberal ideas in China, and the mention of a graduate of Yale, Yung Wing of the class of 1854:

As for the Chinese, instead of advancing in the line of progress just at present, they seem rather inclined to beat a retreat. Fortunately the ratchet wheel of treaty stipulation is behind them to prevent their revolution from going backward with a sudden and disastrous recoil. Disappointing this certainly is, but disheartening it should not be. It was hardly to be expected that this ancient people would renounce the traditions of their fathers, and adopt the ideas of the younger West without a struggle. Among such a mass of human beings, without railway, telegraph, or newspaper, new ideas circulate but slowly. Still, new ideas do circulate, and

now and then we see evidence that they are making a decided impression in influential quarters.

Some years ago, it will be recollect, an effort was made by Prince Kung and his associates to induce members of the Imperial Academy, the Hanlin and others of the highest literary grade, to become students in a new institution for the cultivation of what is here called western science. The very name was unpopular. The noted scholars of the empire scouted the idea of learning from men whom they were accustomed to treat as "barbarians;" and cabinet ministers and imperial censors united in denouncing the measure as revolutionary in tendency, and derogatory to the dignity of China.

A measure of a more revolutionary character is now proposed by Yingkoe, one of the Tartar viceroys, viz.: To add a branch to the civil-service examination system for the special encouragement of scientific studies among the learned and influential classes. The emperor referred the question to the board of rites—the official guardians of ancient routine. They, of course, reported against it, alleging that they feared there would be none prepared to come over if they were invited; that old custom was opposed to such a course; that it would be better for such students to be matriculated in the Confucian college—at the same time informing his majesty that the said college has a department for mathematics, (which, however, is dormant if not dead), and reminding him that one of his illustrious ancestors prepared and published a cyclopedia of mathematical science, which was to be the "standard for all ages."

Thus the movement was checked but not extinguished. There are other men high in position who have it in heart, and who will revive it, perhaps in a more effective form. In the meantime we know that steps are being taken under the auspices of the viceroy of Nanking to send a select corps of young men to America for education, as the Japanese have done. This is at the instance of Mr. Yung Wing, a native gentleman, who was educated at Yale College.

These movements, and others of an auspicious character, are lost sight of amid the roar and tumult of popular hostility.

#### THE DIAMOND-CUTTERS OF AMSTERDAM.

Nearly all the owners of the Amsterdam diamond-mills are wealthy; but the operatives, though they have what is regarded as very good wages in Holland, are quite poor. Like the watch-makers of Geneva, they usually inherit their trade, their fathers and grandfathers having been employed in the same business. They are regular as clocks, laboring so many hours every day, and giving the strictest and most absorbing attention to their exacting toil, which is a constant strain upon their brain and nerves, no less than upon their senses and their muscles. They need to keep their heads clear and their blood cool to perform all the delicate manipu-

lations necessary. The least dullness of sight or touch, or the smallest variation in handling, might do more damage than a whole lifetime of wages would make good. They very rarely spoil any of their work by any fault of their own, for they are so disciplined and trained to their calling that their hands obey their mind almost with the perfection of machinery.

Diamond-cutting seems to me a most dismal trade. The hundreds of men I have seen engaged in the mills appeared wan and worn and melancholy, as well they might, with their perpetual and monotonous round of cheerless and consuming toil. To them each day is like every other day. The seasons and the years come and go, and go and come, without chance or change. Their world is but a revolving disk; the straining of the eye, the tension of the nerves, a painful pressure of the hand against the little gem which mocks them with its brightness, and defies them with its impossibility of possession. So, in one unbroken repetition of wistful work, their life creeps darkly on, and only when the end comes does their rest seem to begin.—"Holland and the Hollanders," by Junius Henri Browne, in *Harper's Magazine* for February.

Doubtless the following description of A. T. Stewart's new marble mansion, on Fifth Avenue, will find interested readers. Some few might prefer less of a palace and more of a home, perhaps:

The building is, without question, the most superb private residence in the country. It has cost three millions without the furniture. The most celebrated artists have been over three years in frescoing the ceilings, and the frescoes are said to be unequalled, except by those in the Prince Albert ball-room at Buckingham Palace. The peculiar style of the building has been adopted because Stewart intends to give it to the city for a gallery when he gets through with it. It is a sepulchral place, with its stone floors and stone stairs, requiring a fire in summer and winter to make it habitable. Mrs. Stewart's room is an exception. The wood work on her suite alone cost sixteen thousand dollars. Every room has a carpet imported and made to fit it, and the color of each room is different. The doors are solid rosewood with silver trimmings, and it cost \$600 to hang each door in the parlor. The picture gallery is complete. Several of the pictures have cost over \$30,000. The two most celebrated are "The Prodigal Son" and "The New England Thanksgiving Dinner." The water works are marvels of elegance and ingenious contrivance. After the parlors, the two most celebrated rooms in the house are "Gen. Grant's room," which is fitted up with great elegance, for Mr. Stewart and the President are great friends. Then comes the "servants' parlor." That is fitted up more gorgeously than any gentleman's parlor that I have ever seen in this city. Curtains, mirrors, imported carpets, elegant chairs covered with red leather, and pictures, adorn the room. Huge ranges, and every conceivable modern convenience can be found in the kitchen.—*Windham County Gazette*.

Those who so industriously circulate the report that "The highest salary paid to any lady teacher is said to be given to Miss Anna C. Brackett, principal of the St. Louis Normal School—\$2,500 a year," should know that Miss Annie E. Johnson, principal of the Framingham (Mass.) State Normal School, also receives a salary of \$2,500 per year.

## THE CONN. SCHOOL JOURNAL.

NEW HAVEN, MARCH, 1872.

### EDITORIAL.

The Boston correspondent of the Hartford *Courant* discourses as follows of our last legal holiday, Washington's birthday:

"The custom that we have of calling its significance to notice among the children is a very good one. We anticipate a day for this purpose, in order that the children may not lose their holiday, and celebrate the 22d on the 21st. Many of the schools meet in their large exhibition halls, when the farewell address is assigned for reading, the boys declaim patriotic selections, and appropriate music is given. The whole makes an excellent entertainment for parents and others interested in the schools of the city, and when accompanied, as I saw it yesterday, by recitations giving the prominent events in Washington's history, and estimates of his character, with drawings, upon the blackboards, of his residence and of his tomb, much is done to fix the recollections called forth by the occasion in the pupil's mind. The winter season is not a good one for holidays as a rule, and it is scarcely to be expected that those now living will see another so mild month of February as that of the present year. I was with a party of gentlemen recently who discussed the subject of holidays, and various opinions were expressed as to their utility and advantages. The prevailing sentiment was, that we do not have enough of them in this country. All agreed that many of our people don't know how to enjoy those that they have."

These are very sensible words. It does not pay to do any half-way work in anything. We are not, as a nation, open to the imputation of doing our business in any half-way manner, but we do make very piece-meal work of our recreations. We will never be in a really healthy state until we make as much of a "business" of our holidays as we do of our mercantile and literary transactions. Recreation is not all play by any means; it is not, as we seem to imagine, a mere concession to the overflowing spirits of our boys and girls, and the butterfly adults. It is, *potentially*, work, and, *actually*, an indispensable preparation for work. No one has begun to divine the philosophy of recreation, who supposes it the mere consumption of time in sportive ways. We see this at once by attempting to apply the word to the gambols of a kitten, or the flittings of a butterfly. There is no "recreation" to one who is all sport, while the word has its deepest meaning to him who works the hardest. All this is the merest truism; yet society seems, if we may judge by practice, to be profoundly ignorant of this recreative philosophy. With work we are profoundly acquainted; but of that which is ever the supplement of work, its indispensable "relief guard," we make scarcely a note. This has been frequently

noticed by foreigners. They find us in a state of chronic business enterprise, of unrest, and consequently of over-nervousness.

A German writer, Francis Grund, recognizes an "air of busy inquietude," as characteristic of our people; James Stirling, a member of Parliament from Scotland, a man of much intelligence, and of generous sympathies, says of us: "You read upon the nation's brow the extent of its enterprise and the intensity of its desires. The deepest-rooted cause of American disease is the overworking of the brain, and the over-excitement of the nervous system." Other foreign writers have discerned in us an incapacity to laugh and to be merry; which remark is of course intended to apply not to our more thoughtless and comparatively few frequenters of watering-places, but to the great solid masses of our solid men.

One of our own great thinkers says: "In the art of elegant leisure, and in the art of wise trifling, our people are sadly deficient. We are bred to business; we are tempered to high excitements." In illustration of the truth that "extremes meet," it is a fact that it results from our utter failure to give recreation its full prerogatives in relation to our business, that when we do on rare occasions violently break over the bounds of office routine, put up the shutters, and emerge into diversion for a season, we rush too far the other way—we overdo the matter in a riot of pleasurable excitement, more feverish than recreating.

Thus, another of our writers, after referring to the nervous zeal with which an American works, and to the predominance of that national trait, *anxiety*, in our work, remarks: "Thus the Americans, as a rule, especially those of the less cultivated and thoughtful class, affect exciting amusements—*dissipations*, in the literal sense of the word; \* \* \* hence the overstrained, the feverish, sensational character which infests not only our working life, but the hours of diversion, which should afford us the most complete repose."

A steady application to business, such as we are proud of, demands regular, steady, periodical relaxation. In Europe, centuries of experience have brought them squarely to this result; and the man of business expects each day his time of work to be confined within a few hours of daylight abridged at each end, and for the rest, to repose, to take his siesta, or to mingle in moderately exciting, social pleasures. The universal prevalence of religious holidays, especially in Catholic countries, provides a number of safety-valves for business pressure,

of which we have little idea, and which tends much to produce a healthy tone in the workers of society.

Let us all, teachers, school visitors, and citizens in general, acting in concert, press this most important matter; let our holidays—these safety-valves of mental pressure—be multiplied generously; and let us be unanimous in observing them. It should be a task undertaken by us at an early date to arrange in concert a good number of school holidays throughout the year, and then to observe them in absolutely regular, conscientious, quiet, restful enjoyment. No more appropriate occasion could be selected as one of these invariable seasons of rest, than the ever honorable day of Washington's birth. Let it be observed, universally, joyfully, thoroughly; and let a fair distribution of other recreative days be made throughout the school year. Then let these appointed seasons be as invariably and universally observed as we now observe our Sabbath rest. Besides the essential gain of power to the refreshed teacher and pupils in resuming work, there will be avoided, under such an arrangement, the now perpetually recurring question, "Shall we have a holiday to-morrow or not?" There is no sense in leaving such a question to the whims of a teacher, or to the school visitors who may be in office on any given occasion. If certain holidays are needed one year, they are needed every year, and should be so established once for all; or if some are in the habit, which we know prevails in some quarters, of giving such privileges for frivolous reasons, they would meet with a salutary check by a concerted arrangement. Such a plan would also prevent the heart-burnings and discontent of schools, which may be compelled by the authorities to study on days when other schools are enjoying themselves out-doors. Under such circumstances there is little study done worthy of the name, while seeds of vexation are sown thickly in the indignant little hearts, bound to furnish the recusant teacher a full harvest of trouble for the succeeding fortnight. It was with much regret, for what we cannot but consider a mistake, that we saw schools in our neighborhood driven through their full tasks on our last legal holiday, Washington's birthday, while every pupil was enviously awake to the fact that all over the country a merry relaxation was filling the air with pleasant sounds. High pressure, gentlemen! but a useless, dangerous speed, at which to drive young minds. We must really make it our most serious business to dispose liberally of this holiday question.

MUCH has lately been said in regard to the introduction into our public schools of direct instruction in morals. In editorials of educational journals, in addresses at teachers' gatherings, in public discussions, and in the columns of our religious publications, this matter is constantly cropping out. There is abundant reason that it should; there is enough in the theme to stir up one's dormant eloquence when we come really to grapple with its importance.

But we have hardly begun to grapple with it yet; we are simply *drifting* into an appreciation of the fact that the glory, honor, and life of our loved country depends on our securing a higher standard of morality in our youth, who are soon to wield the national powers, than exists in their predecessors who now wield them. History has already taught us that no civil institutions, however excellent, can stand against the rising flood of national demoralization; it has also taught us that from gentle beginnings of long, and hardly noticed gradations, the flood has generally risen at last with sudden swelling into a destructive power far beyond the limits of human resistance.

Which way are we tending in this matter? This should be the most prominent question, even in statesmanship, if rightly apprehended. The answer must be, *downward*; in fact, owing chiefly to the double cause of the rapid inflow of Europe's libertinism, and the demoralization of our politicians, in the hot chase after the political services of our new citizens, in about the same proportion as our national material prosperity has been on the increase, our national respect for moral principle has been steadily waning.

We are told that in the early and more Puritanic days of our country, a member of Congress once asked his son to step to his desk and fetch him a sheet of letter paper, as he wished to write to a friend. "Not that paper," said the honest Congressman, as the boy handed him a sheet from one of the pigeon-holes; "that belongs to Congress, and I have no right to use it, except for public business: my own paper is in the next hole." To be even suspected of any such capability of stickling for these more delicate shades of right and wrong in things, would in our days be next to a peremptory veto to the eligibility of a legislative candidate. A vast amount of dishonesty has been ingrained into the business habits and characters of our people, and the young are daily being taught that transactions are "all right," because tacitly allowed

in business matters, which are desperately dishonest and rotten.

The success of these corrupt influences, as also their inexpressible meanness, depends upon their plausible and innumerable disguises under palatable names. They are not the open burglariousness of the footpad, but something far lower. James Fisk, Jr., kept his gigantic frauds so well covered by the flimsy semblances of what might be tolerated in sharp business communities, that he kept his tyrannous self-built throne against hosts of victims and the loathings of the civilized world. And few things show more clearly the torpidity which is creeping over the whole nation, in regard to the vileness of such dishonest practices, than the fact that, with few exceptions, even the staunchest members of the religious press have allowed the momentary flush of sympathy with the victim of an assassin's bullet to induce them to speak lightly of his immense and widely baneful rascalities, while extolling his smartness.

In illustration of the insidious forms of sheep's clothing which this viciousness assumes, we may also recall out of whole nebulae of examples, the reverend Congressman Whittemore of South Carolina. He was convicted of having received a bribe from a candidate for a West-Point cadetship, for which he secured him the appointment, and was expelled. With a sublime air of injured innocence, he at once threw himself upon the good will of his constituents and knocked for readmittance at the doors of Congress, on the slippery ground that the money never touched his hand, but was, by his orders, distributed among his constituency!

One of the latest expressions of this business depravity is also one of the most remarkable. The Congressional committee of investigation into the affairs of the New York custom house unearthed the following choice example of conscientiousness in duty: Inspector James H. Young, being asked if that form of bribery known as the "receiving of house money" was not covered by the oath taken by the inspector, answered, "The oath is considered a *custom-house oath*, and that is not considered as I would consider the oath I have taken before the committee!"

This is only a straw showing the direction in which the current is setting. All over the country, in counting-rooms, in factories and mines, in halls of legislation, and even in whole circuits of ermine-clad judges, this frightful form of immorality is finding foster-fathers. A thing may be a cheat, a foul wrong, but it "is considered"; that is In-

spector Young's phrase—it is the phrase of them all—the wrong for convenient reasons "is considered" to be right.

This insidious moral disease has probably lowered the tone of our national communities far more than it has those of our cousins across the water who have kept themselves better in hand. A pleasing incident, illustrating the more honorable business habits of European companies, has lately come to our notice.

In the summer of 1870, one of the prominent citizens of New Britain, in company with a friend, was making a tour through Europe. They purchased tourists' tickets from Thomas Cook & Son, of London, through France and Germany, to Switzerland. On their return, the war then in progress prevented their making use of the French and German railways, and they were forced to find other routes. Reaching London, they took their useless return tickets to Cook & Son. On any ordinary occasion, any unused ticket would be made good to its full value by the firm, but in this emergency they stated there could be but faint hopes of recovering the value. They took the tickets, however, and the tourists' addresses, promising to secure the refunding of the money if possible. A fortnight ago, our New-Britain friend, to his utter astonishment, received from Cook & Son a draft for £1. 2s. 6d., the exact price of his returned tickets! All honor to the crippled railways, and all honor to Thomas Cook & Son, whom we can safely recommend to our tourist friends. But its lesson for us, is, that such incidents are not "considered" *at all out of place* in European communities; they are simply

in accordance with the commonly recognized principles of business integrity. But in the counting-rooms of our stock companies such an occurrence would be somewhat extraordinary; where there might be such a powerful set of excuses in the unavoidable "visitations of Providence," for slipping out of indebtedness, it would in too many quarters be "considered" simply an inexcusable piece of "greenness" to take any honest pains towards restitution.

The only way to avoid national ruin is to build up carefully the moral characters of our youth. Our public schools can be all-powerful in this work; they are largely too indifferent in their moral influence. *What* they must do, and *how* they shall do it, is one of our most vital questions.

We cannot discuss it further on this occasion, but invite earnest attention to the matter, for thoughts and counsels on this subject are laden with the destinies of our nation.

We print in another column an article from the *Christian Union* in regard to the invitation extended by the representatives of the Japanese government to Hon. B. G. Northrop. Whatever may be the final decision, it should be understood that there will be no immediate change involved. For we are authorized to assure the teachers of the state, that if Mr. Northrop should conclude to go to Japan, he will remain at his post till about November. We would take this occasion to endorse with all our heart the wisdom of this selection. We have found our respect for the Japanese rising rapidly for some months past. Their recent progress, so remarkable to a student of history, for its effectiveness and rapidity, and more especially their complete success in abolishing caste, and the deeply-rooted feudal system, have seemed to open our eyes, not only to a degree of energy combined with executive power somewhat amazing in an oriental people, but also to a divine power carrying out great purposes through them.

Before we had swallowed the morsels of previous news, much less had time to digest them, there came to us tidings of the sagacious decision of the Japanese government to adopt the culture of our language, as that of universal enterprise, and also our method of public instruction; and then follows quickly this selection of our Secretary from among the mighty men of education of our country, to shape the culture of the empire.

Well done, Japan! You could have made no wiser choice; you could not have better shown your determination to carry through the great work you have already begun than by summoning to its chieftaincy one whose name is a tower of strength in Europe and our own country.

Secretary Northrop is a man of very comprehensive mind, which, in connection with sterling common sense, has enabled him to grasp and solve some of the most difficult problems of our educational responsibility.

He is always in the very van of progress, without ever being visionary or radical; he is intensely active in all his movements; he knows how to influence men in very quiet but effectual ways; above all, he is so warm-hearted in all his work that to know him is to love him. His educational experience has been great; first in the subordinate daily work of the teacher; then in responsible official capacities, especially in the states of Massachusetts and Connecticut; his success in discharging these duties has given him an enviable status as an educator, to which very few can hope to attain. He has done already a noble work in our state,

which has called forth the eulogiums of the great metropolitan journals of our country. He has done much beyond local state work, in assisting the enterprises of other states and of our central national bureau.

During the late discussions on the new school laws of England, his views were honorably quoted as authority in the proceedings of Parliament. As if Providence might have been specially preparing him for this new call, he was led recently to traverse Europe, and under the best auspices to examine its best institutions. He is thus specially enriched for future work.

But while we give our most cordial endorsement to this choice, we cannot but say, that, in so doing, we draw largely upon our generosity; for we can ill afford to lose such a man from our state. There is hot and heavy work yet to be done here, and we sadly need the chief who has led us on through previous contests to victory. His loss to our state and country would seem well nigh irreparable.

We will not press this somewhat selfish view of the matter, but will heartily assure our honored Secretary that whether he go out, or abide yet longer with us, our sincere respect and our best wishes will attend him.

## ANNALS OF EDUCATION.

### NEW HAVEN.

As an indication of the educational facilities furnished by New Haven, and the disposition manifested by the young men to improve the opportunities presented, the following figures are given. The number of students whose residences are in New Haven, as shown by the last catalogue of Yale College, is as follows:

Theological Department, . . . . .	9
Law " . . . . .	9
Medical " . . . . .	10
Sheffield Scientific School, . . . . .	27
Academic Department, Seniors, . . . . .	11
Juniors, . . . . .	13
Sophomores, . . . . .	17
Freshmen, . . . . .	10
Making a total of . . . . .	106

or more than one-eighth of the whole number (809) in all the departments of the institution.

Hopkins Grammar School, which is older than Yale College itself, founded in 1660, is a classical institution, which makes a specialty of preparing boys for college, and is second to none in the United States for thorough-

ness of instruction, has about 170 pupils. Of this number, about 90 reside in New Haven, making the total connected with the university, and preparing for admission to it, nearly *two hundred* students.

Add to the foregoing the numerous private schools for both sexes, which have always borne a high reputation, and the system of public schools, rigidly graded from the primary to the high school, comprising about 8,000 pupils, all under the most thorough instruction, and it will be obvious that this city furnishes rare privileges for instruction in every department of learning.

The number of families that have removed to the city to educate their children is large, and is constantly increasing. Without doubt, New Haven may appropriately be called the university town of the state.

The annual visit of the Connecticut State Board of Visitors to the Sheffield Scientific School, which took place on Washington's Birthday, was an event of unusual interest. The State Board of Visitors is composed of the Governor, Lieut.-Governor, three Senior Senators, and Secretary of the State Board of Education, and the object of their yearly visit is to become acquainted with the condition of the School and the work in which it is engaged. In addition to these quite a number of the friends and benefactors of the School were present by invitation. Among those who took this occasion to inspect the actual workings of the institution were: Governor Jewell, ex-Governor English, Lieutenant-Governor Tyler, ex-Lieutenant-Governor Hyde, ex-Lieutenant-Governor Winchester, President Porter, T. S. Gold, Esq., Henry Farnam, Esq., Joshua Coit, Esq., F. J. Kingsbury, Esq., Dr. J. J. Howe, J. B. Sargent, Esq., Wells Southworth, Esq., Edward W. Seymour, Esq., H. M. Cleveland, Esq., the Hon. D. P. Nichols, John D. Candee, Esq., Secretary B. G. Northrop and Charles D. Warner, Esq. In the morning the School was visited by the Rev. Henry Ward Beecher, P. R. Pyne, Esq., of New York, and others.

The company assembled about half past two in the Governor's room at the State House, where Professor Gilman, one of the delegates to the National Agricultural Convention, recently held in Washington, gave an interesting account of the proceedings of that convention, and its probable effect on scientific education. After this the company proceeded to make a regular inspection of the various departments of the Sheffield Scientific School. The first visit was to the art building, to the rooms devoted to free-hand drawing, and in charge of Professor Niemeyer. Here the system of instruction was described and the work of the pupils examined. The company next proceeded to the Collier cabinet of mechanics, likewise in the art building, and in charge of Professor Trowbridge. Here the large and valuable collection of models, plans, and drawings, some five thousand of which were from the Novelty Iron Works, which belong to the department of Dynamical Engineer-

ing, were inspected, and their use explained. The natural history rooms in the old Trumbull Gallery were then visited. These rooms are in charge of Professors Marsh and Verrill, that of the former being devoted to the study of paleontology, and that of the latter to zoölogy. Professor Marsh exhibited and described some of the valuable specimens secured on his expedition to the Rocky mountains last summer, and Professor Verrill showed some of the skulls, skeletons, stuffed birds, etc., of which the room contained many. The company then proceeded to the site of the new hall, which Mr. Sheffield has just begun to erect for the use of the Scientific School, directly north of the present Sheffield hall.

The different parts of the Sheffield hall and the work there carried on were next examined. After looking through the laboratory, the company in turn visited the metallurgical cabinet, where Professor Brush described the collection and explained how it was arranged to exhibit the different stages through which each metal passes from the ore to the finished product; Professor Gilman's room, where some of the new maps with which the school is supplied, were shown and explained; the library, where Professor Brewer showed some of the photographs of Mount Shasta and surroundings, taken by the Clarence-King expedition, and Professor Trowbridge described the new building and showed the plans of its different parts. Here some interesting statements were made by the various professors in reference to the actual condition of the school at the present time, and the progress made during the past twelve months.

#### GUILFORD.

This town has recently united its five central districts, and is at work perfecting a plan for grading its schools. If the trustees of the "Institute" there should now harmonize with the school visitors, Guilford might have what would be virtually a high school of the first class. Could this "Institute" hereafter be supported in part by the town, and be made free to all qualified candidates, its numbers, efficiency, and usefulness, would be greatly increased. Hitherto it has not been a success. Its friends, and even benefactors, are disappointed in the results thus far accomplished by it. A narrow and exclusive policy in its future management will ensure continual feebleness. On the other hand, a liberal and conciliatory administration of its affairs will increase many fold its usefulness, and make it a blessing alike to poor and rich. This most desirable consummation can be reached without in the least degree violating its charter, or endangering its funds. Scores of endowed academies in New England have become free high schools. The trustees retain their organization and continue to exercise all their prerogatives, and yet perform their duties

in harmony with the school committee, and in accordance with a mutual agreement. Such an arrangement may be tentative, and last for one term a year only, or for a period of years, or for so long a time as both parties may agree. On essentially such a plan as this the noble Morgan school in Clinton is to go into operation this month. The way seems now open for just such a happy adjustment of school affairs in Guilford, and if all parties there really desire it, it can be speedily accomplished.

#### WALLINGFORD.

From the Wallingford correspondent of the New Haven *Register* we have the following items of school intelligence:

"The sudden resignation of Mr. Kellogg left the 'Beach School' without a principal; but the talented corps of teachers in the other departments have been equal to the occasion, and no harm has been done, with the exception of the closing of Mr. Kellogg's room and the crowding of Miss Atwater's department by a few zealous pupils. The committee has lost no time in trying to fill the vacancy, by engaging a principal who will fill that position with credit to himself and satisfaction to the citizens. Mr. George C. Adams is the gentleman who has been selected for that position. He is a graduate of Amherst college, and has had sufficient experience to enable him to take charge of the school understandingly."

Mr. H. L. Everest, son of the Rev. C. W. Everest, of Hamden, who has lately been teaching the East-Farms district school in Wallingford, has been appointed principal of the graded school in the railroad district in Meriden, at a salary of \$1,000 a year. He passed a splendid examination, and entered upon his duties with the air of a veteran.

#### PUTNAM.

The Putnam Teachers' Association met on Monday evening, Feb. 26, at the house of J. J. Green, and had readings, an original poem, and discussion of "The relative powers of parents and teachers over the pupils while in school." A member of the school board opened the discussion, and made it quite clear that the teacher stands *locum parentis* while the children were in the school-room, and that there is the same redress for abuse of power as there would be if abused on the part of parents. The control of pupils in school is as absolute as that of parents at home. There is much of ignorance and error prevailing in reference to this matter. Frequent conflicts arise on account of it. Specific cases were presented by the teachers for consideration, which made the discussion interesting and practical. The importance of securing the coöperation of the parents in matters which are for the best good of their chil-

dren was strongly urged. About twenty were present. The meeting adjourned for three weeks, and the subject for consideration will be, "Criticisms, and the best method of teaching reading."—*Windham Co. Transcript*.

#### OXFORD.

Dr. Lewis Barnes, acting school visitor of Oxford, has done a very helpful thing to the teachers of that town during the last session, in holding with them a series of meetings for the consideration of such subjects as had an immediate practical bearing upon their work. Most of these meetings were held in the school building of the first district, in which Mr. Theodore S. Tyrrell, a graduate of the Normal School in the class of last summer, was teacher. Among the more interesting subjects discussed were pronunciation, methods of teaching spelling, arithmetic, grammar and geography, and school government. The methods taught in the Normal School, as presented by Mr. Tyrrell, were received with great satisfaction. Some of the most distinguished friends of education in Oxford have honored these meetings with their presence and counsels.

#### SUFFIELD.

The Connecticut Literary Institute, at Suffield, lost its "ladies' building" by fire, early on the morning of February 29. The total value of the property thus destroyed is about \$15,000, on which there is an insurance of \$10,000. The fact that the building burnt has been on fire twice before, very recently, has excited a suspicion of incendiarism in this case. The first fire, discovered Monday forenoon, February 26, appeared on the roof. The same night the second fire broke out in a bed in an unoccupied room in the third story. Some of the lady students are said to have lost heavily of wearing apparel. It is to be hoped that this misfortune will occasion no serious interruption in the work of one of the most highly honored and useful academic institutions of our state.

#### WOLCOTTVILLE.

The whole number of pupils in the public schools of Wolcottville is 275, under the instruction of six teachers. The high school has a small library, in which is a full set of the New American Cyclopedias. An evening school was established this winter under the instruction of Mr. A. S. Lake, principal of the high school, attended by those unable to attend the day school. Since the school opened, seven of the pupils have connected themselves with the high school. Wolcottville has a village library of fair proportions, and a good reading room, free to all.

GRANBY.

At the beautiful village of Salmon Brook, the "Granby Library Association," of which Samuel Benjamin, Esq., is president, has erected a neat and commodious building for a high school. The school was opened several months ago, and under the efficient management of Rev. T. D. Murphy, A.B., is proving a complete success. Mr. Benjamin and his associates deserve great credit for their efforts to secure such excellent school accommodations to Granby and vicinity, and we wish their most laudable enterprise the greatest prosperity.

CLINTON.

Edward C. Winslow, A.B., late of the Amherst (Mass.) high school, has been appointed principal of the new Morgan school, at Clinton, Connecticut. Salary \$1,500 and house rent. Mr. Winslow is a graduate of Amherst College, and has had very successful experience as a teacher. The Morgan school will now soon be in operation, and with its wise board of trustees and able young principal, seems to have before it a future full of the brightest promise.

Arrangements have been made by Sec. Northrop for holding teachers' institutes during the month of March, in addition to the one at Birmingham, from the 7th to the 9th, announced in our last, as follows:—at Westport, from the 14th to the 16th; at Clinton, from the 21st to the 23d, and at Middletown, from the 25th to the 27th of April. We have every reason to believe that these will be gatherings of great interest and profit. Sec. Northrop comes back to us from Europe full of good things for the teachers of Connecticut; and besides, in carrying on these institutes, will summon to his assistance some of the best lecturers and teachers of the state. Gov. Jewell has promised to speak at each of these gatherings. Let as many as possible of the teachers and friends of education attend these meetings.

MASSACHUSETTS.

The city of Charlestown, on Washington's birthday, dedicated its new Harvard grammar-school building, which, with land and furniture, cost about \$120,000. This "Harvard School" is the one so ably and genially presided over by our friend, W. E. Eaton, editor of the *Massachusetts Teacher*, and we wish him many years of joyous and successful work in the noble house which he is now to occupy with his school.

WISCONSIN.

A plan of considerable importance, which seems to meet with the general approval of the leading educators

of Wisconsin, has just been submitted to the committees on education and claims, by Gen. Fallows. He proposes to have each graded school in the state furnished with a list of studies required for admission into the college classes and the sub-freshman class of the University, with the per cent. to be attained in each branch. The graduates of such schools upon the certificate of the principal, setting forth in detail their standing, are to be received in such classes of the University as they may be able to enter, without further examination, and without any charge for tuition in the University. It is believed that this may supply the missing link between higher and lower schools and effect an appropriate graduation between them.

The Wisconsin *Journal of Education* says:—"We believe the effect of the above plan will be to lift up the entire public-school system of the state. It will give a reward to scholarship which is at once natural and just. It will awaken an interest in the University in all parts of the state. It will elevate the grades of the schools, and give parents the opportunity of preparing their children for college *at home*, in the most critical period of their lives." The state press in general advocate the measure.

A fourth normal school is to be established at River Falls, on the St. Croix river, Wisconsin.

PROVINCE OF ONTARIO, CANADA.

The Ontario educational report for 1870, drawn up by the chief superintendent, presents many interesting facts; it also shows a very thorough research in all the leading educational systems of this country and of Europe, and a determination to make use of good ideas wherever they may be suggested.

The whole number of pupils in the public schools was 442,518, an increase of 10,083. The total receipts for common-school purposes for 1870 were \$1,944,364. 5,165 teachers were employed—2,753 male, 2,412 female. The highest salary paid to a teacher in a county is \$600—the lowest \$100; in a city, the highest \$1,000—the lowest, \$250. The efficiency of public-school education is seriously impaired, as it is so often in our own states, by the action of trustees and parents, "whose aim is to get what they miscall a cheap teacher, and who seek to haggle down the teacher's remuneration to as near starvation point as possible, though, in reality, they are intellectually starving their own children and wasting their time by employing an inferior teacher."

This report covers the last year of the old *régime*, under which the schools might be *free*, or requiring payment of fees, as the local votes in school sections decide. At the present time, however, the public schools of the province of Ontario, by act of legislature, are free to all residents between the ages of five and twenty-one years.

One normal school of over 200 pupils is sustained, and its services are found indispensable. Free public

libraries have been organized, containing 239,062 books. Superannuated and worn-out teachers may be pensioned from a fund composed jointly of an annual appropriation of \$4,000 from the legislature, and yearly subscriptions from such able bodied teachers as may in future desire to become recipients.

Many practical points, such as compulsory education, are discussed with much ability in the report, and instructions in drawing and natural science in all public schools is recommended with much pointed argument and earnestness. Our Canadian cousins of the province of Ontario are evidently wide awake in educational matters, and we shall do well to study their systems for our own profit, and to extend to them the right hand of fellowship.

### BOOK NOTICES.

**REPORT OF THE COMMISSIONER OF EDUCATION TO THE SECRETARY OF THE INTERIOR FOR THE YEAR 1871.**—A voluminous work, looking as if it were ready to burst its covers with statistical figures, analyses of school systems, native and foreign, comparisons of results, criticisms, suggestions, bewailings of deficiencies and dangers ahead, and appeals for wise and concerted action. It is the second annual report of Commissioner Eaton, and the appearance of these two documents marks an era in the progress of education in our nation. Whether the action of our general government be simply advisory, or more, there can be no doubt that by such labors as this, it is rendering essential aid to the cause, to be obtained as effectually from no other source.

However opinions may vary as to the exact nature of the past, our general government should take in the development of education. None can doubt that it has a duty of which this statistical and supervising work is a manifest element. For our great central power at Washington—the head and front of this great people—to be utterly indifferent in its official attitude towards the struggling, inefficient, or only partially efficient, and somewhat antagonistic efforts of our component states to keep above water this vital element of republican government, is not a cheering or becoming sight. An official recognition of worthy labors, a commendation of what is so done as to conduce to the stability of our institutions, a depreciation in distinct terms of what is unwise done, or of dangerous inefficiency where it is found, must produce salutary influences throughout the land. And it is quite evident that men of quick observation, and good judgment, stationed at the central post of observation, and made officially cognizant of measures adopted in every state, and their results, are far more capable of determining upon right and wrong principles, from this survey of the whole field at once,

than local officials, with limited observation, and state prejudices, are likely to be.

Another consideration shows the importance of the work of our Commissioner; statistics are as essential to the life of our great educational work as they are to the work of a bank or insurance company, or as daily accounts are to the welfare of a household. From the nature of the case, state officials cannot collect these statistics of the whole field with any fair measure of success—but our government, through its influence and its official machinery, can do this thoroughly, and thus, in the only possible way, give us accurate information.

Time alone, however, can make even our national power thoroughly successful in this great task, as will appear from these prefatory words by Commissioner Eaton :

"The furnishing of information by these state and city officials, and by the officers of incorporated institutions, is wholly voluntary, and notwithstanding the perfect willingness which has been shown on their part, some time must elapse before they can become so familiar with the forms, as to render the supplying of these educational statistics a matter of routine, while the field and scope of inquiries are steadily enlarging."

That part of the report which is the most novel, and which has already begun to produce a profound sensation in our communities, is that which lays bare the astounding mass of illiteracy in this most enlightened of nations. In approaching this deplorable subject, the Commissioner says :

"The moment of neglect is the opportunity of vice and crime; and the extent of neglect is the measure of the peril from these sources, and the index of the reduced productions of industry and the losses of capital. If the individuals who are idle, ignorant, and vicious, increase so as to constitute the majority, the declared object and form of our government, so far as that unit is concerned, is perverted or destroyed, be it the civil unit of the town, city or state. Notwithstanding the beneficial results and imperative necessity of universal education, every generation of adults has thus far, in some form, presented difficulties or shown hostility to the education of all the children in their midst. The late appalling struggle in our nation was not only sectional, but the conditions out of which it arose were as a line of demarcation indicating the differences of education in the different sections. The solemn fact is shown that one-fifth of the adult population of the country is utterly illiterate, and three-fourths of this ignorance is to be found in the south. By careful calculation it is shown that race prejudice is exercised by five people out of every six toward one.

\* \* \* \* \*

"In some instances, in the southern states, all the intense bitterness of a fratricidal war is remembered. Yet again, men of eminence in the professions and in society accept, with a philosophy he wishes was universal, the new order of things. Rising above the social proscription around them and whatever of remorseless poverty any of them may endure, they appreciate the necessity and the benefits of universal education.

"Joined with them in the work of education, as a rule, are those who have settled in that section from the north. The charity of the north and of Europe, the great benefactions of Mr. Peabody, and more than all, the action of the general government through the Freedmen's Bureau, have set on foot the establishment of schools in accordance with the idea of universal education.

"In conclusion, the Commissioner appeals for a generous forgetfulness of sentiment between the sections; recommends national

aid to support and guide in a friendly way the systems of education, for, through such charity he sees the solution of the existing sectional difficulties; reiterates his recommendation in last year's report for the appropriation of the net proceeds of the sale of government lands for educational purposes throughout the country."

The particular facts in regard to illiteracy have been so neatly collated by the *N. Y. Evening Post*, that we cannot do better than to quote its words:

"With a population of 38,113,253 in the United States, there are 5,660,074 persons over ten years of age who cannot write—more than fourteen per cent. Of these 'illiterates' there are: Native, 4,882,210; foreign, 777,864. This immense difference in favor of the foreign population is at first sight the most surprising feature of this report. Of the native 'illiterates,' however, 4,117,589 are in the southern states, where negroes and their fellow victims of the slave system, 'poor whites,' swell the number. In the northern and Pacific states, however, the relation of native to foreign ignorance is less flattering to America than might be supposed, there being 764,611 native and 706,581 foreign 'illiterates.' This shows a much larger portion of ignorant among the foreign than among the native population, but the number of our fellow citizens born in this country who cannot read and write is appalling. If we compare races instead of nativity, we find the figures as follows: white, 2,879,543; other races, 2,780,531. Even our race cannot pride itself very much on the comparison, though here, also, the proportion of ignorance is largely against the black man—Chinese and Indians being so few in numbers as hardly to deserve consideration. Advocates of a 'white man's government' find little to encourage them in the figures below us. In the southern states there are 1,516,339 white 'ignoramuses,' and 2,673,633 of all other races, mostly negroes, of course. The percentage of ignorance among the negroes, therefore, bears a relation to that among the whites of about three to one—not an unfavorable showing, if we consider the recent condition of the negroes.

"Comparing the sexes, we see that out of 5,643,534 'illiterates,' excluding the Chinese and Indians, who are not classified by sex or age, 2,608,847 are males, and 3,034,687 are females—425,840 more girls and women who cannot write than there are men and boys. In the southern states the difference is less marked; the preponderance of ignorant women being in some measure due to the accumulation of girls in northern factories. Of the whole excess of 425,840 in the female sex, 209,297 belong to the northern states, although the number of illiterates in these states is not one-fourth the number in the country. In the Pacific states there is an excess on the other side of 440."

We must be content on this occasion with the simple stating of a few more of the facts brought out in the report.

The Pacific slope is arousing to its duties. In California a state normal school has been established. Many new and excellent school buildings have been erected throughout the state; the school laws have been improved recently; a portion of the tax is appropriated to library purposes. In Oregon far less activity is shown. Nevada is making steady progress. A very interesting feature of the education of the whole region is the fact that it is brought face to face with the countries of the Orient. The result, however, is disgraceful to our intelligence and humanity.

"Chinese children in San Francisco are numbered by the hundred, but neither there, nor elsewhere in the state, are there any provisions for their education. \* \* \* Unfortunately, educational proscription has been rigorously maintained in Cali-

fornia, Oregon, and Nevada, against the children of Indians, and often against those of the blacks.

"The condition of New Mexico is deplorable; *there is not a public school in the territory!* In the territories generally, the ratio of ignorance has been steadily increasing, owing to the indifference of our general government to the matter."

There are signs of progress in various parts of the United States toward universality of elementary education. As conducive towards this end, the present law of Connecticut, requiring the partial education of children employed in factories, is cited with satisfaction, as being in advance of the provisions of other states.

There are 114 normal schools in the United States, of which 23 are carried on by state support. Of colleges, there are 368, of which 136 educate females exclusively.

The one hundred and thirty-seven pages of statistical tables in this report furnish a fund from which thoughtful educators will not fail to draw largely in studying and perfecting our systems. That some errors have crept into these statements is evident.

Of our personal knowledge, the statistics given concerning the Normal School of Connecticut are so widely incorrect, that it would seem likely that some clerical mistake had exchanged for the real figures those of some other school. As those given rather underrate the condition of our school, and as we feel disposed to do all the cackling that we can over this one solitary normal egg that our state has laid, we regret this mistake. Knowing, however, the characteristic accuracy of the Commissioner, we cannot allow this error to impair our confidence in the general correctness of his figures.

**CHARACTER.\***—Mr. Smiles wields a versatile pen. He is more than a connoisseur in the literary world, or a compiler of other men's thoughts, he is an author. His writings are characterized by this feature or trait of the productions of genius, they are always suggestive of more than is said. His thoughts come into the mind of the reader as railroad engines do into a dépôt, bringing a lengthened train with them.

His last book, bearing the title "Character," is, up to this time, his masterpiece. It exhibits the author's familiarity with the literature of the ages and an extensive reading of history. Every essential point made in his speculations, and position taken in theory, is illustrated by historic references.

The book has the rare quality of furnishing the reader a double pleasure—that which results from following a writer in original or ingenious speculations, and that which comes from the interest we take in historic illustrations. The information one gathers of the men mentioned, is, by no means, a small part of the benefit of reading the work. Character is delineated in all its essential features. Its influence, as a power

\**Character.* By Samuel Smiles, author of "Self-Help," "Life of the Stephensons," "The Huguenots," &c.; and editor of "Round the World." -

in the world, is first brought to view. In the following manner, it is contrasted with genius :

"Genius always commands admiration, character most secures respect. The former is more the product of brain-power, the latter of heart-power, and in the long run it is the heart that rules the life. Men of genius stand to society in the relation of 'its intellect, as men of character, of its conscience; and while the former are admired, the latter are followed.'

Character, as a home influence, and as a power in society, is clearly described and illustrated by numerous examples. Those elements, that must constitute the parts of a commendable character, are described, such as self-control, moral courage, truthfulness, obedience to the behests of duty, devotion to chosen work, carefully restrained temper, and cultured manners. These elements, cultured in the discipline of experience, developed in selected scholarly companionship, make a man—what he was designed to be—a power in the world. The work is more than a hand-book for the formation of correct habits and a guide for those whose characters are yet unformed, it an inspiration to all worthy aims in living, and a help to such as would not have their life a failure.

**COLTON'S NEW INTRODUCTORY GEOGRAPHY, AND COLTON'S COMMON-SCHOOL GEOGRAPHY.\***—After a careful examination of this new series of Colton's Geographies, we feel that we cannot do less than to commend them heartily to our teachers. Their merits are many, but must be summed up in a few words. There is one in which we take special pleasure. The multiplying of the members of a "series" to the advantage of the pockets of publishers, but to the great disadvantage of pupils and the confusion of teachers, is one of the crying evils of the day. In the present instance, the publishers have bravely faced down all the temptations, and this series is complete in *two books*. This is excellent, and we know that it will be appreciated.

These books have been prepared in no careless way, but under a very definite plan. The results of past experience in teaching have been carefully collated as bearing upon instruction in this fundamental department, and a new method has been adopted of greater simplicity, brevity, and efficiency.

The topics have been brought into a more compact, and therefore a more effective form. Whether the particular methods of treatment are the *best* now put before the public, we are not called upon here to say. It is for the interest of education that a thorough trial should be given to all the leading methods proposed; some future day will award the palm rightly; meanwhile, all sensible and well-devised systems, like the present one, deserve an appreciative trial.

Studies in physical geography form a prominent part in the lessons of both books. The details are in all

\* *Colton's New Introductory Geography, and Colton's Common-School Geography.* New Series: published by Sheldon & Co., New York City.

cases limited to questions of importance, that any overloading of the mind with uninteresting lists may be avoided. The maps are new, constructed on a uniform scale, and exceedingly clear and neat. They are also adjusted to the latest changes, and show us Prussia leisurely reposing over a huge slice of territory west of the Rhine.

The engravings are by the hand of master artists. Fortunate children of 1872, whose eyes may be so elegantly feasted and at the same time so aesthetically trained in the school routine! Some valuable and varied instructions in map making occupy the last pages of the larger work. Success to these well-ordered volumes!

**THE EDUCATIONAL YEAR-BOOK FOR 1872.\***—This is a hand-book of reference, comprising a digest of American public-school laws, systems of instruction, and interesting information, statistics, anecdotes, and suggestions, concerning education in general.

The matter in this book is similar in many respects to that contained in the report of the U. S. Commissioner of Education, and in fact is founded largely upon the statistics of that report. It is, however, in a shape to be much more useful to most teachers, for the statistics given are only the more important ones selected out and standing by themselves in very accessible positions. All the leading facts in regard to various educational systems are here presented in a small, very neat, and very inexpensive hand-book. It would be an ornament to the teacher's desk, and lying always within his reach, would often answer, in a moment, questions of fact that are likely to arise. But as this volume is designed for this year alone, it must be procured at once to return its full value to the owner.

\* *The Educational Year-Book for 1872.* Published by A. S. Barnes & Co., New York City.

**HARPER'S MONTHLY** rarely fails to have in it much that is good for the schoolmaster. Teachers of geography and history will find the March number an especially rich one for them. Taste of the good things in it, fellow teachers, and you cannot but bring instructions of fresher flavor to your pupils for so doing.

## PERSONAL.

Hon. Birdsey G. Northrop, Secretary of the State Board of Education in Connecticut, has been invited by the representatives of the Japanese government to go at an early day, to Japan, and aid in the establishment of a system of popular instruction adapted to that empire. The work will probably occupy him, if he accepts, for a period of years, and will, as we understand it, include such duties as in many governments devolve upon a minister of public education.

There is probably no one in this country better qualified than Mr. Northrop to undertake the task. He has been for many years in Massachusetts and Connecticut an official guardian and promoter of popular education. Intelligent, wise, indefatigable, self-forgetful, prompt, he has shown himself an excellent administrator of business. Enthusiastic, capable of enlisting the aid of all sorts of colleagues, ready in expedients, and of vigorous constitution, he is well fitted to endure the fatigues of an arduous post, and to secure the coöperation of all sorts of men. He has just come home from a tour of educational inquiry in England and on the continent, which is an admirable preparation for the duties to which he is now called. We do not know whether he will accept the invitation; but we hope for the sake of Japan, and for the sake of universal education, that he will not decline it, except for the most imperative considerations.

It is very interesting to watch the progress of Japan in its study of and intercourse with the nations of the west. The minister of that country, now resident in Washington, Mr. Mori, is a man of English education, greatly interested in the progress of knowledge, earnest, and desirous of promoting the advancement of his country in all good things. By his intercourse with our official representatives, and by his visits to different parts of the country, he has gained the confidence and esteem of many Americans. The young Japanese who are studying in Brooklyn, New Brunswick, New Haven, Monson, Norwich, and elsewhere, have acquitted themselves for the most part with exemplary diligence and success. One enthusiastic teacher writes us that if all the Japanese are like his scholars, he should like to move his school to the empire of Japan. The embassy now on its way, outranking the resident representative, is a special mark of progress and inquiry. The head of it, as we are told, is one of the highest officers of the government—being one of two men who share the honors which among western nations pertain to the prime minister. Four officers of lower rank, and a considerable retinue, attend him. The object of the embassy, it is supposed, is to bring an officer of high rank and prolonged experience directly into contact with the governments of Christian nations. An adopted brother of the Mikado is now receiving instruction in an American school. Already one of the heads of departments in Washington, Gen. Capron, recently U. S. Commissioner of Agriculture, has been called to Japan to aid in the development of the material resources. Now latest, but we presume not last, of these indications of progress, comes this important summons to Secretary Northrop.

Christian Union.

John Hopkins, of Baltimore, proposes to establish a university on the outskirts of that city. He offers nearly eight million dollars for that purpose, and will have the institution take his name.

## FACETIAE.

FRACTIONAL HUMANITY.—We had supposed, until lately, that (tailors alone excepted) every man, woman, and child, was a complete individual unit, the world over. We have "to live and learn," however, and on this point we have received new light. The last report of the state superintendent of public instruction of Alabama sets the total attendance of female children in the public school at 2,682 $\frac{1}{4}$ ! Barnum ought to secure that quarter specimen of humanity without delay; she would bring him in more quarters than any average unitary being could. One of the members of the present freshman class at the Wesleyan University, Middletown, on being asked soon after entering college, the number of his classmates, answered "*Between 48 and 49.*" And only last week, a gentleman living at the geographical center of Connecticut, on being asked how many children he had, answered "*About seven!*" Putting this, and that, and the other together, we are beginning to suspect that there must be then a fractional humanity among us, and that one girl and one girl, as our primary arithmetics have it, may not be *two* girls, but only, 1 $\frac{1}{4}$  girls, after all!

Types sometimes arrange themselves into such fantastic meanings, that some fairy tricksy Puck would seem to have been meddling with "typo's" finger-ends. Thus, in our first editorial of this number, we asserted of our overworking ourselves as a nation, "This has been frequently noticed by foreigners." The types makes us assert, "This has been frequently noticed by forgiveness!" And worse yet: We said in our manuscript, "One of our great thinkers says"; an amazing change came over the "spirit" of the article, when our facetious type-setters sent us the proof, reading thus: "One of our great drinkers says!" To avoid the vengeance of the "third party," we lost no time in transferring our appeal to more sober authority. Which reminds us of an erratum in one of our recent journals, for "alum water," read "alma mater!"

"An ounce of prevention is worth a pound of cure," but there are not a few people who take a pound of prevention for an ounce of cure. Thus, an old lady, not long ago, in her perambulations, coming upon a railroad track at a station, asked how soon the next train would pass. On being answered, "in half an hour," she decided at once to delay crossing the track till the cars had passed, remarking sagely that "a body couldn't be too keerful!"

"My son," said a good mother to her young hopeful, "did you wish your teacher a happy new year?" "No, ma'am," responded the boy. "Why not?" "Because," said the youth, "she isn't happy unless she's whipping some of us boys, and I was afraid if I wished her happiness she'd go for me."

Logic is logic. Thus: Epimenides said "All Cretans are liars." Now Epimenides was himself a Cretan; therefore, Epimenides was a liar. But if he was a liar, the Cretans were not liars. Now if the Cretans were not liars, Epimenides was not a liar. But if he was not a liar, the Cretans were liars.

A sophomore in a recent term examination at Yale, on being asked who Edward Gibbon was, remarked, "He commanded one of Cromwell's royal regiments."

## TEACHERS' BULLETIN.

**WANTED.**—A situation as Principal of a Graded School. The applicant has had several years' successful experience as Principal of a school in one of the cities of Connecticut. Can furnish good testimonials. References, B. G. Northrop, Secretary of State Board of Education, or H. C. Davis, New Haven, Conn., to whom communications can be addressed.

**SITUATION WANTED AS TEACHER.**—A lady who has had experience in teaching in the Chicago public schools, would like a situation as teacher. Refers to Hon. B. G. Northrop, New Haven, and Charles Northend, New Britain.

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One of the most interesting lectures on sound ever delivered. Original discoveries, brilliant experiments. Beautifully illustrated. By Prof. O. N. Rood, Columbia College, New York.

The first of the above, on Spectrum Analysis, has just been published as No. VII. of the celebrated University Scientific Series; the second, on The Sun, will be published as No. VIII., April 15; the third, as No. IX., May 15; the fourth, as No. X., June 15. The first six numbers of this celebrated series are (1) The great lecture of Prof. Huxley on the Physical Basis of Life; (2) The world-renowned lecture of Prof. G. F. Barker, M.D., on the Correlation of Vital and Physical Forces; (3) The ablest reply ever made to Huxley, On Protoplasm, by Dr. J. Hutchison Stirling; (4) Prof. E. D. Cope's great comprehensive lecture, On the Hypothesis of evolution; (5) The three celebrated lectures of Tyndall on Haze and Dust, Scientific Use of the Imagination, and On the Methods and Tendencies of Physical Investigation; (6) Alfred Russell Wallace on Natural Selection as Applied to Man.

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THE NEW MUSIC READER FOR PUBLIC SCHOOLS.

Every teacher in a public school who has ever desired to teach music has felt the want of a book that was simple, clear, and progressive in its character—one that could be used even if the teacher was scarcely proficient in the first rudiments of the science. Such is the new Music Reader by Mr. Jepson. His system of teaching, as set forth in this book, has been pronounced to be the best in the United States by the highest authority in this country, Gen. Eaton, Commissioner of Education at Washington. Mr. Jepson has been a teacher in New Haven for several years, and the high appreciation of his system of music by the principals of the public schools in which he has taught may be gathered from the following:

It gives me much pleasure to testify of the success attending the study of vocal music in our school under the superior management of Prof. Jepson. Mr. J. is thoroughly qualified for his work, and enters into it with a zeal that is highly commendable. Not being satisfied, however, with what he has already done, he has conceived the idea of revising his "Elementary Music Reader," making a complete and easy gradation of exercises adapted to the wants of the younger as well as the older pupils. Mr. Jepson has already established an enviable reputation in New Haven as a teacher of vocal music, and his revised work, so admirably adapted to school use, will no doubt meet with a large sale.

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